

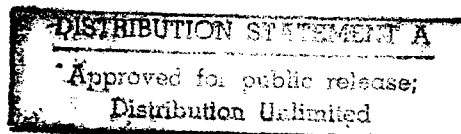
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JPRS Report

Supplement

Nuclear Developments

***IRAQ:
Nuclear and Missile Proliferation***



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Nuclear Developments

Iraq

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SUPPLEMENT

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BRAZIL

Role of Citizens in Iraqi Weapon Systems 'Hazy'

PY2408000690 Sao Paulo O ESTADO DE SAO
PAULO in Portuguese 23 Aug 90 p 10

[Report by Roberto Godoy]

[Text] Brazil has never manufactured mass-produced missiles and has therefore never exported any kind of missile. The ballistic weapons that Avibras Aerospace Industry, Inc. has sold to Iraq are aerodynamically stabilized unguided rockets that are used for saturation fire. Without electronic guidance systems they are limited to the trajectory set by the Astros-II launching ramp.

The participation of Brazilian experts in the Iraqi development program is also a hazy subject. Just over 20 experts are working on Saddam Husayn's war effort. They are engaged in a project to lengthen the range of Soviet Scud-D Missiles with auxiliary motors; in the integration of the internal systems of the Adnan-I airplane, or AWACs, a system for advanced warning and airspace control; and possibly on an engineering solution for a light self-defense missile for jet fighters.

The Brazilians became involved in the programs in two ways, either hired by Brigadier Hugo de Oliveira Piva or on their own initiative. Some Brazilians have learned that French engineers are regularly working on Iraqi projects.

Guidance Systems Reportedly Reexported to Iraq

PY1608162090 Sao Paulo O ESTADO DE SAO
PAULO in Portuguese 15 Aug 90 p 7

[Report by Assis Moreira]

[Text] Geneva—Brazil armed Iraq with guidance systems for missiles that have a 60-km range. Brazil imported these guidance systems from Switzerland and promised not to reexport them. This information was supplied by the Swiss press yesterday.

According to reports, the Brazilian company Avibras [Avibras Aerospace Industry, Inc.] equipped its Astros 2 missile launchers with Fieldguard electronic guidance systems, which are manufactured by Contraves Company, an affiliate of the Swiss Oerlikon-Buehrle Arms Group.

Erwin Bucklar, a spokesman for the Oerlikon Group, told the ESTADO bureau that he could not say if Brazil actually exported missiles equipped with the Swiss guidance system. "That material was delivered to Brazil along with a Brazilian certificate of end use [preceding two words in English] (not for reexport)," he explained.

Bucklar also said he doubts the truth of rumors that AVIBRAS is now producing the guidance system. "It is

a sophisticated piece of equipment; that is very difficult," he said. The spokesman also denied that the Swiss group had granted a license to Avibras.

The Fieldguards sold to Avibras were produced at a plant belonging to Contraves, the Italian affiliate, and also at a plant in Zurich. The sale of a small quantity took place a long time ago. "This information always becomes current whenever there is something happening in the Middle East," Bucklar said.

Switzerland officially bans the export of war materiel to crisis areas. Nevertheless, Iraq has imported arms from Switzerland, whose government, according to current laws, cannot prevent a number of exports.

The press reports prompted a discussion among the Swiss about ways to prevent the export of pharmaceutical technologies that permit manufacturing poisonous gases. In a country whose official position is neutrality in the face of conflicts, such a discussion is uncomfortable at the least.

20 Brazilians Working on Iraqi Military Projects

PY1808162090 Sao Paulo O ESTADO DE SAO
PAULO in Portuguese 17 Aug 90 p 10

[Report by Roberto Godoy]

[Text] The production complex of the Iraqi Military Industrialization Ministry includes dozens of facilities that are spread throughout that country. At least 20 Brazilians are working in one of those facilities 120 km from Baghdad. They were hired to work in support programs, such as an auxiliary booster for increasing the range of the Soviet-made Scud-C missiles.

The Brazilian specialists—a few engineers and several technicians—are also involved in a program to build five AWACS type planes for surveillance, advanced warning, and control. The first plane of this type made its inaugural flight in July 1989.

The Brazilian experts are involved in connecting airborne systems—that is, several computers, sensors, and trackers that are linked to the main radar under the antenna mounted on the fuselage. The team was not organized in Brazil for the specific purpose of working on this strategic Iraqi project. Several of them worked in Iraq for companies that supplied equipment to Iraq in the 1970's. When their contracts expired, they were invited to stay in Iraq.

More recently, as a result of the crisis that affected the materiel industry, other professionals who were dismissed by their respective companies tried to obtain jobs where their specific skills were needed.

The most significant project in which Brazilian personnel are involved is the construction of a Sidewinder/AAM type light missile for air combat. Shortly before the

Kuwait invasion, Western intelligence services believed that the engineering prototypes were ready for the preliminary engine tests.

The names of only three of these specialists are known: Ronaldo Bataglin, an engineer; and Luis Carlos Mendes (a computer expert) and Antonio do Prado (an expert in electronics).

Presence of Military Advisers in Iraq Causes Concern

PY2508002090 Rio de Janeiro Rede Globo Television in Portuguese 2300 GMT 24 Aug 90

[Excerpts] Itamaraty is concerned about the presence in Iraq of Brazilian reserve military men who are helping the Iraqi Army. [passage omitted]

According to Itamaraty, the Iraqi Government has issued 24 predeparture permits to Brazilians today. None of the permits, however, include the former Air Force officers who are helping the Iraqi Army increase the range of its missiles.

For Itamaraty, the presence of those retired officers in Iraq has placed Brazil in an embarrassing position with respect to the other countries of the world.

[Begin Foreign Minister Francisco Rezek recording, in progress] ...taking into account the nature of their contracts, the nature of what they are doing in Iraq, and the political consequences of those contracts for Brazil. [end recording] [passage omitted]

Government Urges Engineers To Leave Iraq

Missile Development Involvement

PY2608005690 Rio de Janeiro O GLOBO in Portuguese 25 Aug 90 p 18

[Text] Brasilia—Yesterday Government House spokesman Claudio Humberto said that the stay in Iraq of engineers belonging to the missile-developing company HPO [Hugo de Oliveira Piva] may be misconstrued as a violation of the UN resolution that Brazil has signed. He added that President Fernando Collor has instructed Itamaraty to appeal to the patriotism of the engineers. Claudio Humberto stated that all of them are reserve officers who were trained at the expense of the Brazilian taxpayer.

Yesterday Itamaraty learned that Brigadier Piva reportedly arrived in Baghdad on 24 August to deal with the status of his employees and the contract with the Iraqi Government. According to other reports the brigadier had been touring Europe, including Geneva, Paris and Lisbon, taking care of his business and making contacts to resolve the situation of the Brazilians whom he had sent to Iraq.

Of the initial group of 23 people who left for Iraq beginning September 1989, four are currently on leave in

Brazil and have been instructed not to return to Iraq for the time being, until the Brazilian Government manages to resolve the situation of the other 19 engineers who are in Iraq. Among the group are engineers who had worked for Engesa [Specialized Engineers Inc.], Orbita, Avibras [Avibras Aerospace Industry Inc.], Embraer [Brazilian Aeronautics Company], and INPE [National Institute of Space Research].

Here are the names of Brazilian technicians and engineers hired by the HOP on behalf of the Iraqi Government: Antonio Rogerio Prates Salvador, Arquimedes Zacarias, Azhaury Carneiro da Cunha Filho, Carlos Alberto de Paiva Carvalho, Carlos Vagner Bueno, Emilio Sugimoto, Lolberto Arariboia Verwieb, Luis Akutso, Luis Sergio Ferreira, Marcio da Silva Luz, Marco Antonio Coc collin [name as published], Mattael Antunes dos Santos, Renato Nello Zanetta, Ricardo Campmany, Ricardo Satori, Ronaldo da Silva Araujo Franco, Sergio Renato de Souza Balbi, Tonio Francisco Fogagnoli, Vagner Campos do Amaral Silva and Vagner Madeira da Silva. [number of names as published] All the relatives of these professionals who had been in Iraq have already returned to Brazil.

Engineers Return to Work

PY2608000490 Rio de Janeiro O GLOBO in Portuguese 25 Aug 90 p 18

[Report by Jose Eustaquio de Freitas]

[Text] Sao Jose dos Campos, Sao Paulo State—The 19 Brazilian engineers and technicians hired by the Iraqi Government to design and develop missiles returned to work at the beginning of this week at a research facility located in a fortress near downtown Baghdad. The Brazilians had left Baghdad 20 days ago at the request of the Brazilian Embassy and were staying at the Expressway Camp of the Mendes Junior Company, some 400 km from the Jordanian border.

Government officials brought them back to Baghdad and instructed them to continue complying with their work contracts as of 20 September. According to their families, they are safe, calm and have never regarded themselves as hostages. None of them has asked for a visa to leave Iraq because they are not worried about the instability in the region and do not believe that there will be a war. On Thursday, most of these professionals left their work to go to the apartment of one of their colleagues where they played cards, drank beer, and ate barbecued food.

Brigadier Hugo Piva, who owns the HOP [Hugo de Oliveira Piva, full name of the company owner] company which hired the engineers, has recently been trying hard to terminate the collective labor contract, following instructions received from the Brazilian Foreign Ministry, so as to comply with the blockade declared by the UN Security Council.

Missile Experts Want To Return From Iraq

PY0409121490 Sao Paulo O ESTADO DE SAO PAULO in Portuguese 2 Sep 90 p 18

[Report by William Waack]

[Text] The 21 Brazilians who took part in an Iraqi military project for the development of an air-to-air missile now want to leave Iraq and return home. They have already applied for exit visas to the Iraqi Industry and Military Industrialization Ministry, to which they are subordinated. So far, however, they have not received permission to leave the country.

If the permission is not granted in the next few days, the group intends to solicit the official help of the Brazilian Government which has denied any connection with the team of Brazilian engineers and experts who have been taking part in the Iraqi Government war effort. These Brazilians have an extremely high technical and cultural level, and many of them are doctors of philosophy. They have been living in Baghdad since the end of 1989 and have signed contracts for two years. They were very happy in Iraq, where they were granted housing and transportation, until the start of the Persian Gulf crisis one month ago. The trade embargo against Iraq, which was ordered by the United Nations, became the main reason used by the spokesmen of the group for applying for exit visas: The embargo does not allow them to purchase the essential equipment with which to continue their work.

Some of these Brazilians agreed to comment on their work in Iraq, as long as their names were not published. They expressed their deepest concern about what they called the "mystery" about their work. They asserted that they merely advise the Iraqi Government on the technical specifications and development of an air-to-air missile that is similar to the Piranha project. They said the Aeronautics Ministry has already developed the Piranha to an advanced stage in Sao Jose dos Campos.

One of the Brazilians said: "We are showing the Iraqis how to develop this type of tactical weapon which will not alter the strategic balance in the Middle East. We are showing them motors, designs for the body of the missile, target tracking, and explosives. We have to show them what they have to buy in the way of motors, for example. Only after that will they be able to build the weapon. Even after we leave the country, it will still take them some three years to complete the project. In other words, it would take them three years to build the missile."

No missile has yet been launched in Brazil, not even from a plane, and the experts have not yet completely dominated missile technology. One of the Brazilians said: "On paper, this missile has been launched and has flown many times, but reality is very different from theory," adding that "the Iraqis are purchasing access to the technology, not a completed product." The Brazilian experts believe their work "is very inexpressive" in the

face of the problems being experienced by the Iraqi leaders. Although the group is concerned in keeping the customer satisfied, they are now facing difficulties in view of the psychological state of many Iraqis, particularly the younger ones, who are almost panicking. Another of the Brazilians said: "We are stuck here, without salaries or the opportunity to leave, and yet in Brazil we are considered mercenaries. I am even afraid that the Israeli secret service will chase us when we return to Brazil."

The group has not received any salary in the last two months. This, however, has been caused by the financial difficulties being faced by their official employers, HOP [Hugo de Oliveira Piva] Consultants and Representations, which is owned by Major Brigadier Hugo de Oliveira Piva, retired. The company's financial difficulties have seriously harmed the experts working in Baghdad. They are intelligent and cultured. Some of them are still good-humoredly and ironically commenting on their current situation. One of them said: "In addition to working without being paid, we are being criticized in Brazil and have become international gangsters. This is something I did not expect."

Minister Says Contacts With Iraq 'Illegal'

PY2908192090 Rio de Janeiro O GLOBO in Portuguese 28 Aug 90 p 15

[Report by Marcia Marques]

[Text] Aeronautics Minister Brigadier Socrates Monteiro said yesterday that when the Brazilian Government decided to join the economic blockade ordered by the UN Security Council, any contact between Brigadier Hugo Piva, who heads a group of Brazilian military specialists acting as advisers in Baghdad, and the Iraqi Government became illegal. He explained that Piva is a well-known scientist and that, since he has already left the FAB [Brazilian Air Force], he can work wherever he wants. On 25 August, during the Soldier's Day commemoration at Army headquarters, Monteiro said that the Brazilian reserve officers working in Iraq would be punished in Brazil.

The minister said the fact that Brazil sold arms to Iraq in return for oil in the 1970's has been maliciously exploited. He noted that the countries that really armed the Baghdad Government were the PRC, the USSR, and France, because Brazil supplied Iraq only with some Tucano training planes and armored vehicles. He said that what is really happening is that Brazil has begun to annoy the traditional arms suppliers by refusing to be a client and by demanding to be a partner. Moreira also denied reports that the Piranha missile project, which was developed by the Aerospace Technology Center (CTA), has been taken to Iraq by companies owned by Brazilian reserve officers.

After denying that Brazil wants to buy an IBM vector-processor supercomputer to build an atomic bomb, he explained that this type of computer is very important in

speeding up calculations, thereby expediting the evaluation of aircraft projects, for example. He said that the computer is being purchased by Embraer [Brazilian Aeronautics Company].

He said: "I have been officially informed by U.S. Ambassador Richard Melton that the U.S. Government authorized the transaction when U.S. Trade Representative Carla Hills visited Brazil. The deal may have been delayed because of bureaucratic problems, but as far I as know, the purchase of the supercomputer has been authorized."

The minister said that he believes that "it is necessary to reformulate the armed forces concept all over the world. Furthermore, it is necessary to reformulate operational doctrines."

He went on to say: "I do not mean to say that current doctrines should be eliminated. The current situation justifies a reformulation of the role. This will be a challenge for countries like France, England, and Italy."

Brigadier Reportedly Researching Weapons in Iraq

PY2908155990 Rio de Janeiro O GLOBO in Portuguese 28 Aug 90 p 15

[Text] Sao Jose dos Campos—According to relatives and people linked to the HOP [Hugo de Oliveira Piva] Consultant Company, Reserve Major Brigadier Hugo de Oliveira Piva has now been in Europe for approximately two weeks and will not return to the country before the end of this week. The brigadier telephoned his office on 24 August, but he did not say where he was because of security reasons.

The brigadier intended returning to the country over the past weekend, but he has now stated that new commitments had emerged that would keep him in Europe for another seven days. He has avoided giving precise information about his commitments, the projects in which he is involved, and the work and travel itinerary. He also refused to give any information over the telephone fearing that an extension of the Middle East crisis could create unfavorable conditions for his work as a military consultant, and even for his life.

Before travelling, the brigadier told some friends that he had been surprised by the invasion of Kuwait by Iraq because he had observed that Saddam Husayn's Government appeared to more interested in obtaining technological capability for his country, especially in the aerospace sector. The installation of laboratories and research centers with the help of several countries during the past few years seemed to point to this fact. The brigadier also transmitted offers of joint development with Brazil, or the financing of Brazilian projects that would have technological advantages for Iraq. According to those same friends, the brigadier believed that the

Arab countries would act in a united form to dissuade enemies or to prevent divisions that would harm Arab positions regarding Israel.

This is why the brigadier agreed to contract 23 experts in September 1989 who would be willing to travel to Iraq to carry out autonomous research. They are working on the development of aerospace technology and projects for the improvement of missiles, communications systems, and the military use of satellites and weapons industries, according to the brigadier's friends.

Most of the families of the Brazilian engineers remain calm and consider the news on the situation in the Persian Gulf disseminated in Brazil to be exaggerated. All of them defend the right of the experts to use their knowledge and carry out their jobs wherever they want. Meanwhile, some of the relatives of the experts fear that their links with Iraq's technological-military effort places their lives in danger, especially from the Israeli military community.

Official Views Nuclear Agreements With Iraq

PY2708143490 Sao Paulo FOLHA DE SAO PAULO in Portuguese 24 Aug 90 p A-14

[Report by Deonilson Roldo]

[Excerpts] Foreign Minister Francisco Rezek, 46, feels pessimistic regarding a negotiated solution for the Persian Gulf conflict. Rezek yesterday spoke before the congressional foreign affairs committee. He said: "It now seems impossible to solve the crisis without violence, without an armed confrontation." According to the minister, a "bloodless" negotiated solution may be difficult, especially for Kuwait which is currently militarily occupied and annexed by Iraq.

Rezek said that the position that Iraq may now assume is "unforeseeable." He said: "Many analysts, who are pessimistic, think that we have reached a point of no return." As for the occupation of Kuwait by Iraq, Rezek is convinced that a negotiated solution would leave "disputes that will torment the country in the upcoming months." He added: "This is an impasse unprecedented in recent history."

The government yesterday reiterated that Brazil may participate in a UN peace force if such a force is formed to intervene in the conflict. "If the crisis lasts a bit longer, the United Nations will probably intervene, and Brazil may participate within such framework," the minister said.

The formation of a multinational peace force depends on several bureaucratic measures, including the approval of a budget and of a resolution to create such a force. According to Rezek, this is one reason why the United Nations has not intervened so far with the "Blue Berets." The minister said: "It was hoped that the conflict would be quickly solved and that it would not last so long." The

minister said regarding the duration of the conflict; "I am less hopeful now than five days ago." [passage omitted]

Minister Rezek said that the government knows nothing about agreements that reportedly have been made with Iraq over developing nuclear weapon technology. "Official information is extremely scarce," he said. "If some agreement was reached, it was made secretly" without the knowledge of the Brazilian Government or Congress. Rezek said that if such an agreement was reached it was made on an "extraconstitutional" basis.

The Foreign Minister does not believe that there will be "an international conflagration," following the Iraq-Kuwait crisis. He does acknowledge, however, that the conflict "somehow threatens everyone" in the economic aspect. The end of the cold war and the East European countries' concern for economic development are two factors that make a world war seem distant, according to Rezek. "Fortunately we are reaching the end of the century," the minister said after recalling that the current century was marked by two world wars.

Weapons Technology Transfer to Iraq Examined*90WP0138A Hamburg DIE ZEIT in German
10 Aug 90 p 19*

[Article by Wolfgang Hoffmann: "Deadly Business; Saddam Hussein's War Arsenal; Weapons From East and West Making Iraq Strongest Military Power in the Arab Region"]

[Text] Federal Foreign Minister, Hans-Dietrich Genscher, was undiplomatically clear: "I am of the opinion that Iraq is a classic example of what happens when surplus arms production in Europe is sold and thus arms a country, actually enabling it to be able to conduct two wars in succession."

This statement is concurrently an admission of individual responsibility because European countries are, in fact, among the most important arms suppliers of the Persian Gulf States, a region disturbed by war and crises. According to investigations by the Sipri International Peace Research Institute in Stockholm, France, Italy and the Federal Republic are to be classified as prime suppliers of Iraq among western industrialized countries. From the East, up to now, China, the USSR and Czechoslovakia have belonged to the same category. However, it is conspicuous that the USSR, for example, has been cautious with sales of the most modern arms technology to Iraq. Moscow, in fact, never appeared stingy in supplying Iraq with tanks. However, the Kremlin was cautious with the exportation of rockets with multiple warheads and the know-how that goes with them.

Lead by France, which supplied Iraq with a broad array of rockets and missiles up to the effective Exocet anti-ship rocket, the West Europeans were different. Leading German rocket builders such as MBB [Messerschmitt-Boelkow-Blohm GmbH] only appeared on the fringe with exports to Iraq. However, this has to do with the fact that German rocket deals involving the Milan, Hot and Roland systems are entrusted to the French partner Euromissile, the joint subsidiary of MBB and Aerospa-tiale. Such arms collaboration is a simple path to achieving successful arms transactions, without conflicting with the restrictive arms export policy of the Federal Government.

France has considerably reduced its arms exports to Iraq since the end of the Gulf Conflict; of course, not for political or moral reasons, but for financial ones. Iraq had become so delinquent in its payment of bills that the suppliers ran the risk of becoming needy themselves. Paris did, in fact, convert Baghdad's debts of about \$4 billion but simultaneously decided not to finalize any new arms deals.

While the French arms industry has primarily been visible as a seller of ready to use weapons, German firms have become less conspicuous with hardware exports. All the more spectacular were the deals with software, the know-how for construction of an independent Iraqi arms machinery. Best known is the case of the Hessian

concern, Kolb GmbH, against which an investigation has been in progress for years because of suspicion it gave Iraq production of poison gas weapons. If this allegation holds up, it will be of greater import than the arms deals with tanks or aircraft. The effect of chemical warfare agents such as mustard gas or Tabun nerve gas is much more disastrous than the use of conventional weapons of war. Victims of Iraq, which also used poison gas against Iran, document this. Once Iraqi President Saddam Hussein has secured his hold on affluent Kuwait, he should also have the means to fulfill his further dreams of weapons. Now that Hussein already possesses "the poor man's atomic weapons," in the form of chemical weapons, real nuclear weapons with the appropriate carrier rockets are his next goal. William Webster, Director of the American intelligence service, CIA, reckons with a rapid propagation of nuclear delivery systems: "Around the year 2000, 14 developing countries will be capable of producing their own ballistic rockets."

Iraq has already started that with European, and primarily German, assistance. According to information from peace researchers in Stockholm, Iraq already possesses a carrier rocket with the "Condor" model designation developed in Argentina. Argentina, on the other hand, got the Condor technology from Europe—from Austria and the Federal Republic. MBB is the sponsor of the Condor in the Federal Republic, if not even the secret father of this type of rocket. Originally, Condor 1 was supposed to have been a weather research rocket. Such camouflaging of actual military aims is a part of arms producers' daily gadgetry.

At any rate, Condor 2, further developed in Iraq, has since lost its peaceful character of weather research. However, it has not yet been determined that German enterprises, such as the tool manufacturing firm, Gild-enmeister [AG] and MBB, which have been implicated as helpers in the Iraqi rocket center at Mosul, have breached Federal German laws. Of approximately 1,500 rejected supply items, not a single one manifested itself as improper for exportation to Iraq.

Nonetheless, Iraq will have to forego direct or indirect assistance from German firms, for the time being, due to the total UN trade embargo. And even the new Export Law of the Federal Republic, if it should come into force this year, imposes increased punishment for involvement. Iraq has taken precautions against this eventuality, though. It has maintained a close relationship with Brazil for some time. Both countries are bonded by a comradeship in arms which is especially pursued by arms exporter Brazil, and is based on crude oil and money. For example, the Iraqis have already profited from the Brazilian "Sonda" rocket program (range up to 600 kilometers). According to an investigation by the "Wisconsin Project on Nuclear Arms Control," based in Washington, Sonda technology with all production rights has already been sold to Iraq, Libya and Saudi Arabia. In Iraq, the technology was used to manufacture surface-to-surface rockets.

Possibly, Saddam Hussein was just prevented in the nick of time from gaining possession of intercontinental rockets sooner or later. In 1984, the French firm, Arianespace, made Brazil a special offer, in order to particularly support Brazil's civilian outer space research, so that the country decided on the Ariane to transport its satellites into space. Sale of the Viking rocket engine with comprehensive know-how was also included in the offer package. Thus, Brazil would soon have been in a position to build intercontinental rockets. At least that is what Wisconsin director, Gary Milhollin, who recently publicized the case in the United States, asserts.

The propulsion technology of the Viking engine is, in fact, hardly utilized for military purposes because it is too elaborate. However, it is beyond question that it is utilizable. This technology can have devastating consequences in the hands of political daredevils. In the opinion of Wisconsin director, Milhollin, Brazil had no misgivings about supplying Viking technology even to Iraq and comparable countries. Milhollin: "Brazil, as one of the largest arms exporters to developing countries, sells everything to every willing customer, including customers in the Middle East." As proof, Milhollin presented a computer deal about to be closed between IBM (United States) and Brazil. At stake is the sale of a supercomputer that will assist in considerably reducing development expenditures for a rocket program. Milhollin reported in the NEW YORK TIMES that Brazilians had already intensively familiarized Iraqi development teams with rocket know-how in the past and draws the conclusion that they will also make the IBM super computer available for similar purposes.

Nonetheless, the European-Brazilian deal with the Viking engine did not materialize. The United States protested against the transaction. The Viking system is specifically subject to the "Regulation Jurisdiction for Rocket Technology," established in 1987 by the United States, the Federal Republic, Italy, Great Britain, Japan, Canada, and France. In the agreement, the countries obligate themselves not to make any technology available that could be suitable for constructing rockets with a range of more than 300 kilometers and more than 500 kilograms effective load. Arianespace took the American protest seriously and suspended the deal one year ago. Joerg Feustel-Bilechl, director of space systems with the European space organization, ESA [European Space Agency], on the Viking deal: "It is really old hat."

AUSTRIA

Arms Dealings With Iraq Recapped

AU1308103690 Vienna PROFIL in German 13 Aug 90
pp 32-34

[Herbert Langsner report: "Shopping With Saddam"]

[Excerpts] It was in June 1989, somewhere in southern Styria. A team of reporters from the U.S. NBC television network, accompanied by PROFIL, had been looking for

the house of businessman and engineer Rupert Trummer for hours. Finally, they found him, peacefully mowing his lawn. "Mr. Trummer, we want to talk to you," a journalist addressed the rather confused man; at the same time, the camera started to roll.

Mr. Trummer did not hesitate long. He launched himself at the camera and tried to grab the heavy machine from the filming reporter. In his eyes there was blind rage and open fear, as if he was not threatened by a television camera but by a machine gun.

The comparison is not inappropriate. Styrian Rupert Trummer was heavily involved in the construction of facilities for the development of intermediate-range missiles in Iraq. Anyone who makes such deals and then turns up on television could easily suffer some untoward fate.

Coincidentally, the German engineer Ekkehard Schrotz, one of the main sources of missile technology for Iraq, was not in his car when it was blown to pieces by a car bomb in the summer of 1988. Arms designer Gerald Bull, inventor of the Noricum cannon GHN-45 and heavily involved in Iraqi arms deals over the past years, died of two bullets in the neck in front of his apartment in Brussels in March. One week earlier British journalist Farzad Bazoft had been executed in Baghdad for alleged espionage; he had snooped around a secret military facility.

An Austrian engineer who reported anonymously in PROFIL and then on SPIEGEL-TV about his work on an Iraqi construction site for missiles was not hit quite as hard. Clumsily filmed by the SPIEGEL people, the informer was identified immediately: On the same evening that the program was carried, a Mr. Ali called the Austrian and told him that he would die soon. However, he only suffered several break-ins at his apartment and the destruction of his car.

On 13 May 1990, a fire broke out in the offices of the engineering company Delta Consult in Salzburg. This company, too, was part of that secret technology and construction concern which helped Saddam Husayn to achieve his greatest goal: becoming the most important military power of the Arab world, with missiles which can carry nuclear and poison gas warheads for thousands of kilometers and target them precisely.

Unlike nearly any other state, Iraq has stocked up its arsenals over the past years and has tried to get its hands on modern weapons technology—in Austria it received rather good service in this respect.

Repeatedly and until the last moment, the more nationalized Hirtenberger ammunition factory, which has been owned by Styrian industrialist Emmerich Assmann for one-and-a-half years, sold ammunition components to Baghdad. "We delivered civilian products," Assmann spokesman Klemens Grossinger said, referring, for instance, to the popular percussion caps, which,

according to Austrian law, are not considered military materiel and are, therefore, not subject to permission for export.

According to Grossinger, "we rejected" an offer from Germany to participate in a production facility for special ammunition (base-bleed) [preceding word in English].

Assmann, who also delivered arms to Kuwait, has been deprived of his business by the latest developments, since Austria will stop any trade relations with Iraq and Kuwait beginning this week. The loss: "A double-digit million sum." (Grossinger)

The oldest known arms delivery comes from the Steyr-Daimler-Puch company. An alleged nonferrous metal factory (project name: Saad 21), sold to the Iraqis under the aegis of the then Steyr chief, Hans Michael Malzacher, about 10 years ago, soon turned out to be a production facility for cartridge cases.

Then came the infamous 200 Noricum cannons, which, including spare parts, were shipped to Baghdad between 1982 and 1985, and from which VOEST made a profit of 1 billion schillings according to the managers, who are now standing trial. The necessary traction machines, which are not considered to be military materiel, again came from Steyr-Daimler-Puch.

On the other hand, the rumor that Steyr delivered 200 tanks to the warring Saddam has never been confirmed. Even though Steyr applied for export permits, it never dispatched the vehicles, according to the investigations.

The internationally most spectacular deal, which links Austria with Saddam Husayn's armament mania, was the technology transfer for the development of the Condor-2 intermediate-range missile—the weapon that cost the German Ekkehard Schrotz and the Austrian informer for PROFIL and SPIEGEL their cars, the Styrian Rupert Trummer his nerves, and journalist Farzad Bazoft probably his life. [passage omitted]

The Condor missile, on which the Iraqis and their Western helpers have been working for years, is still not ready for use. If Saddam Husayn wants to wage a war, he will have to make do with the Scud missiles which the Russians delivered to him in the past and which were further developed in Iraq.

In addition, he now has that materiel which Austria sent to Kuwait: Steyr guns, Hirtenberger ammunition, Swarovski night vision equipment, and Glock pistols.

FEDERAL REPUBLIC OF GERMANY

Aid for Iraqi Poison Gas, Nuclear Bomb Viewed

AU1308160590 Hamburg DER SPIEGEL in German
13 Aug 90 pp 81-85

[Unattributed report: "Worse Than the Plague"]

[Text] Agitation ran high in the Federal Intelligence Office [BND] in Munich-Pullach, the FRG espionage

headquarters. One of the agents, Iraq expert al-Kadhi [spelling as published] had fallen into the hands of Saddam Husayn's intelligence service and been sentenced to death. In a prison in Baghdad the spy was awaiting his execution.

A race against time started; prominent supporters came out in favor of the delinquent. President Richard von Weizsaecker sent a plea of clemency to the Iraqi head of state. Foreign Minister Hans-Dietrich Genscher used political talks with Dictator Saddam Husayn to ask for mercy for the German Iraqi.

During Genscher's visit in November 1987, the death sentence was turned into a life term. Soon afterwards al-Kadhi was released. When he arrived in the FRG, he was not awaited only by his German wife. Customs authorities were also interested in the returnee, and issued a request to ascertain his residence.

The BND man is now also faced with a trial in the FRG. The Darmstadt public prosecutor is investigating al-Kadhi, 51, on suspicion of violation of the Foreign Trade Law (file number 21 Js35285 6/87). Reportedly, together with former Preussag managers, he is integrally involved in the production of poison gas in Iraq.

Through the Hamburg company Water Engineering Trading GmbH (W.E.T.), coowner al-Kadhi reportedly delivered facilities to Iraq which are used for the production of basic chemical substances for the manufacture of the nerve gases tabun and sarin. The plant (name: "Project 33/85") was taken in sections via Turkey to Falluja, which is strictly guarded by the military.

Dictator Saddam also had W.E.T. deliver tonnes of chemicals, such as methylene chloride and sodium fluoride. They are indispensable for the production of tabun.

It is still unclear what and how much the BND knew about the sensitive activities of its man in Iraq. It is, however, certain that al-Kadhi, who represented Preussag in Baghdad in the past, was an extremely successful businessman.

Because al-Kadhi had good contacts with the Iraqi Government until he was uncovered, he moved from adviser to managing director and coowner at W.E.T. In financial terms, it was a profitable involvement. Just for mediating and delivering plant 33/85, which has a planned daily output of 17.6 tonnes of the basic substances for poison gas, he is said to have received 1.2 million German marks [DM] in provisions.

A BND man as deliverer of poison gas technology, who got out of prison with the help of top-ranking politicians—this is something which so far one could perhaps imagine only as an unrealistic thriller. The al-Kadhi case demonstrates how deeply FRG business and politics are entangled in the armament of the Middle East war-monger.

When Saddam had airplanes and ground forces equipped with chemical weapons last week, the production sites were no secret to the U.S. intelligence service, the CIA. In Salman Pak on the banks of the Tigris river, there is the research center for the production of poison gas; in Falluja, basic materials are manufactured; and in Samarra, the poison gas weapons are built.

It is certain that German companies performed decisive construction and development work for the death emanating from the laboratories at each of these three places. Germany has helped Saddam, as no other nation, build up the largest and most comprehensive chemical weapons arsenal in the Third World. Experts estimate the production capacity at several hundred tonnes of poisonous substances per year.

Many have committed sins in Iraq. The export balance sheet of the Stockholm Peace Research Institute, SIPRI, carries the Germans only in second place in the sale of murderous hardware to Baghdad. The main deliverers are, above all, the Soviet Union, France, and China, which have provided Iraq with tanks, combat aircraft, and guns.

But hardly any other country has provided the lunatic from the Middle East so comprehensively with highly dangerous stuff as the FRG. Companies from the FRG helped in the construction of missiles that are to reach Israel, and even in the development and production of his own nuclear bomb.

The state with the fourth largest army in the world, which wants to become self-supporting in armament, could rely on the largest export nation in the world. Germans are highly valued as lecturers at the Saad 16 military research center, where sometimes 38 German companies held training courses; they have become indispensable as engineers and technicians in arms production in Taji and elsewhere.

An effective alliance: the dictator, who obviously stops at nothing; and German businessmen, who attempt to procure any kind of dangerous goods. The main thing is, the cash is right.

Recently, the CIA briefed the BND on an alarming suspicion. An Egyptian who lives in Minneapolis in the U.S. state of Minnesota is traveling around the FRG to purchase poisonous substances for bacteriological warfare.

Saddam is dead set on acquiring this still-missing part of his destruction machinery. According to information of the BND in Pullach, Iraq is busy with research and development of bacteriological weapons, in particular in Salman Pak, 35 km southeast of Baghdad. According to SIPRI peace researchers, such weapons are "a hundred times more lethal" than the current chemical agents.

Baghdad is mainly interested in mycotoxins. Above all, the substances HT-2 and T-2, which are counted among the trichothecenes, are coveted by biological weapons

researchers. Military men consider the substances far worse than the viruses of plague, cholera, anthrax, and typhoid fever, which were produced in biological weapons laboratories in the past.

The new substances, which are often produced by genetic manipulation of microorganisms, have the advantage that, if applied correctly, they do not endanger one's own troops or population because these people can be immunized against the viral agent. Such toxins are particularly well suited for sabotage acts and terrorist attacks.

Once again, it was the Germans who delivered mycotoxins to Iraq. Three years ago, Josef Kuehn from Neustadt am Tuebenberge, Lower Saxony, mediated the sale of 100 milligrams of the mycotoxin TH-2 and more than 100 milligrams of the mycotoxin T-2 to Baghdad. The poison from the FRG, the BND learned, had a lethal effect during tests on animals; even in a highly diluted state they could cause cancer in people. However, the businessmen played dumb: Kuehn said he did not know what the Iraqis wanted the poison for.

Buyers, such as the Egyptian from the United States, have quite obviously bought up bacterial strains, nutrient solutions, and fermentation facilities on their tours. However, even the CIA, normally well informed about arms research in Mesopotamia, has to rely on speculations about how far Iraq has come with its biological weapons development in reality.

The fact that the BND and highest level Bonn government bodies get information from the United States, as in the case of the Egyptian, is not an exception. "Far more than a thousand times" the Americans have briefed the FRG services and high-ranking Bonn ministry officials about sensitive arms deals with the Middle East, the Far East, and South America over the past six years, according to findings by Norbert Gansel, arms expert of the Social Democratic Party of Germany. Not much has been done as a consequence. Many of the written warnings, which have been declared so-called nonpapers in Bonn, immediately ended up in the trash can.

In particular, the "negligence of FRG export control authorities," the highly renowned Washington Carnegie Foundation noted in a study in April, has considerably exacerbated the situation in the areas of tension. The role of FRG citizens and companies is "disquieting."

The obstacles concerning the export of military equipment and accessories can be overcome all too easily. The number of personnel of the responsible Federal Economic Office (BAW) in Eschborn alone prevents the officials from making all too thorough investigations. About 75,000 applications for export permits are received each year.

The foreign trade law clearly tells the investigators how to do their work. The regulations, the authors of the commentary on the law write, are "to be interpreted in favor of the principle of freedom in case of doubt"—that

is, in favor of industry. Export of the so-called dual-use goods, which can be used for both military and civilian purposes, can hardly be prevented by the Eschborn officials.

Even though military materiel must not be delivered at all to areas of tension, this regulation is easily circumvented: The goods first go to a NATO partner. Where it is passed on from there can hardly be checked.

The arms and aviation concern MBB [Messerschmidt-Boelkow-Blohm], for instance, delivered combat helicopters via Spain and Milan; and Hot and Roland missiles via the German-French sales company Euromissile to Iraq. In the middle of the Gulf War, Saddam's officers were trained by German military advisers on antiaircraft missiles.

"Now one has to appeal to the ethics of the boys," a BAW spokesman said last week, looking rather helpless.

This will hardly work. German deliveries have proved to be extremely resistant to ethical considerations, particularly in the case of poison gas. For years Iraq received from the FRG poison gas plants from the Hamburg W.E.T. and Pilot Plant, a sister company of Karl Kolb KG of Dreieich in Hesse.

Officially declared factories for pesticides against date pests, the facilities were obviously plants which are suitable "for the synthesis of chemical combat agents," according to an internal report of the Darmstadt public prosecutor. It is only disputed whether they were "especially constructed" for this purpose.

Despite international protests in the mid-1980's, the combat agent exporters continued their deliveries. However, they were obviously too sure of themselves. About 12 tonnes of material were seized at W.E.T., Kolb, and company by the Iraq Special Commission of the Cologne Customs Criminal Investigations Office.

W.E.T. trader al-Kadhi and his associates must probably expect an indictment. According to the investigations, the permits necessary for the facilities in Falluja, where mainly phosphorous trichloride and phosphorous oxytrichloride are produced, were missing. The two chemicals are basic substances for nerve gases. The investigations have already had consequences at W.E.T.: At the beginning of the year the company applied for settlement proceedings.

Kolb may have hopes. The investigations are protracted; experts are continually leaving. The investigators cannot even rely on the help of federal authorities.

The Hesse investigators complained to the Frankfurt prosecutor general that there have been "certain problems in cooperation with the Bundeswehr" during the investigation of the case. Thus, in mid-1988, the Federal Office for Military Technology and procurement promised an expert opinion on the Kolb case. Last April, the Federal Office announced that it was impossible for the authorities to answer the essential questions. Previously,

an expert of Bayer AG had taken leave. The public prosecutor's office had to ask other chemical companies for support.

On the other hand, the investigators will hardly have any problems in the most recent case of Ferrostaal. As general agent, the Essen MAN subsidiary delivered a cannon factory to Taji near Baghdad. Evidence of this is unambiguous.

Last week investigators searched the administrative office of Ferrostaal partner Buderus in Wetzlar and took quite a lot of material with them. The Feldmuehle subsidiary is suspected of having delivered important know-how for the cannon factory.

The investigators also made a catch in the offices of the medium-sized Export-Union GmbH in Duesseldorf. There they found the documents of an explosive Iraqi deal.

A company called Teco from Baghdad had ordered 40 tonnes of metal sheets and 14 tonnes of steel rings for the Iraqi oil industry from company owner Wolfgang Boehm. The price struck the investigators. While this amount would normally have cost about DM100,000, the Iraqis were prepared to pay the gigantic sum of DM3.8 million.

It is also striking that in the contract Iraq insisted on a special material check by the Saarland Technical Control Association. In mid-June, three Teco employees went to Saarbruecken to monitor the test and to receive training in processing the material, which was produced by Saarlust in Voelklingen.

As the investigators learned, the special alloy is a so-called maraging steel. Because of its special hardness and tensile strength, the metal is used, according to the official export list, "for the production of components of a gas centrifuge for uranium enrichment."

By last year, the small company H and H Metalform in the Muensterland region aroused conspicuous with deliveries for military nuclear technology to Baghdad. The two owners of the company, Peter Huetten and Dietrich Hinze, had delivered machines with which Iraq could produce gas centrifuges. In such facilities, the 90-percent enrichment of uranium 235, the material which is used for the construction of nuclear bombs, is possible.

It seems to be a delicate case for the Export-Union. There is no official permit which is required to export this special material.

However, those responsible from Saarlust and the Technical Control Association will also have problems finding plausible explanations. It is, for instance, unclear why blank papers with the name of one of the Technical Control Association employees were among the documents found. There is the suspicion that this was intended to fool export authorities.

During their research concerning Ferrostaal, the investigators again came across the H and H company. It is said to have purchased an auto-hooping [Autofrettageanlage] facility from the Zorge factory of Schmidt, Kranz, and Company in the Harz region and to have then sold it to Iraq. A similar computer-controlled facility for material checks and the hardening of cannon barrels and cartridge cases was sold to the Bundeswehr by H and H.

H and H feels completely in the right. The company can present an official permit from Eschborn for its order in Zorge and the export to Iraq. According to this permit, the plant, a completely harmless facility, was intended for pressure checks of bottles and containers.

Hot Stuff for Iraq: German Contractors and Subcontractors for Products That Can Be Used for the Production of Armament Goods

Buildings and Facilities for Poison-Gas Research and Production

Karl Kolb, Dreieich
Pilot Plant (in liquidation), Dreieich
Water Engineering Trading, Hamburg
Preussag, Hannover
WTB Walter-Thosti-Boswau, Augsburg
Heberger Bau, Schifferstadt

Weapon and Ammunition Facilities

Ferrostaal, Essen
Buderus, Wetzlar
Schirmer-Plate-Siempelkamp, Krefeld
Hochtief, Essen
Kloeckner, Duisburg
Marposs, Krefeld
Mannesmann Demag, Duisburg
SMS Hasenclever, Duesseldorf
Dango and Diententhal, Siegen
Georg Fischer, Singen
TBT Deep Well Drilling Technology, Dettingen
LOI Industrial Furnace Facilities, Essen
Leybold, Hanau
Zueblin, Stuttgart
ABB, Mannheim
Lasco Metal Forming Technology, Coburg
AEG, Frankfurt
Thyssen, Duesseldorf
Fritz Werner Industrial Facilities, Geisenheim
Siemens, Munich
Machine Factory Ravensburg, Ravensburg
Dynamite Nobel, Troisdorf

Military Research

Gildemeister Projecta, Bielefeld
MBB-Transtecnica, Taufkirchen
Karl Kolb, Dreieich
Integra Sauer Informatic ICME, Neumuenster
Degussa, Frankfurt
Carl Zeiss, Heidenheim
Deutsche BP, Hamburg
Blohm Machine Building, Hamburg
Mauser-Werke, Oberndorf

Aviatest (subsidiary of Rheinmetall), Neuss

Missiles, Helicopters

MBB, Munich
Leifeld, Ahlen
H and H Metalform, Drensteinfurt

Nuclear Technology

Nukem, Hanau
H and H Metalform, Dreinsteinfurt
Saarstahl, Voelklingen
Export-Union GmbH, Duesseldorf

Transportation

Faun, Lauf
MAN, Munich
MAN-Roland, Offenbach
Iveco Magirus, Ulm
Daimler-Benz, Stuttgart
Rhein-Bayern Vehicle Construction, Kaufbeuren

Firms' Involvement in Iraqi Arms Deals Described

AU2108141890 Hamburg *DER SPIEGEL* in German
20 Aug 90 p 73

[Text] According to their own advertisements, the managers of Water Engineering Trading GmbH (W.E.T.) carried out "buying and selling of goods of all kinds—with the exception of those that require a permit." However, they did not seem to take this very seriously: Last week four Water managers were arrested.

On Friday morning [17 August] the investigators of the "Iraq Special Commission" of the Cologne Customs Criminal Investigations Office (ZKI) moved in on managers Peter Leifer, Reinhold Otto Krauskopf, and Otto Holzer, as well as the German Iraqi Nazar al-Kadhi [spelling as published]. They allegedly sold goods to Saddam's regime in Iraq through their W.E.T. company in Hamburg which they would not have been permitted to deliver: filling and screwing equipment for 122-mm caliber poison gas grenades.

After almost three years of investigations Darmstadt public prosecutors Thomas Brand and Detlev Thomas suspect that W.E.T., together with the chemical installations company Karl Kolb KG, helped build a poison gas production plant in Samarra and helped produce grenades. Kolb managers Helmut Maier and Ewald Lange as well as former representative to Iraq, Klaus Fraenzel, were also arrested on Friday.

The public prosecutors base their case mainly on the expert report by Swiss scientist Werner Richarz, which was completed last week. The head of the Swiss Technical College in Zurich came to the clear conclusion that the equipment sent by the Germans to Iraq had been built for the production of poison gas from the very beginning.

In Richarz's opinion, the factories in Samarra could hardly be used for the production of pesticides, the use

for which they are intended according to the official version. And the expert for chemical installations is not alone in this opinion.

Like the Swiss, Dieter Hallmann of the Goetting Max-Planck Institute has come to the conclusion that the facilities in Samarra can be used for the production of nerve gases such as tabun or lewisite. Hallmann already worked as an expert in the lawsuit against Imhausen company, which delivered a poison gas factory to the Libyans.

While tensions are mounting in the Gulf region because of the adventurer's policy of Saddam's regime, customs investigators and public prosecutors are receiving more and more clues to the involvement of German companies in arms deals with Iraq. Obviously, the involvement goes from help in the construction of a nuclear bomb to the construction of factories for cannons and ammunition.

Worldwide, the FRG Government is now the target of criticism because of its lax laws and insufficient controls. Recently, the Bonn Foreign Ministry had to admit in an expert's report that Gildemeister Projekta GmbH from Bielefeld, for instance, caused considerable damage to the FRG's foreign relations through two deals with Iraq.

The machinery and installation construction company from eastern Westphalia had built a partially armored armament and research center in Mosul in Iraq, where Saddam's experts are developing new arms, from chemical weapons to missiles. The Bielefeld public prosecutor's office has been investigating the case since 1989.

At the end of last week, the Duesseldorf public prosecutor instituted preliminary proceedings against the trading company Export-Union GmbH from the Rhine. It is suspected of having delivered to Iraq special steel for nuclear technology.

The material, which was produced by Saerstahl in Voelklingen, was ordered by the Technical Corps for Special Projects in Baghdad. This is a special department for top secret military projects and is subordinate to President Saddam.

One of the W.E.T. managers who was arrested last week by the ZKI investigators, former BND agent al-Kadhi, had been in prison before: He delivered gas masks used for protection against Iraqi poison gas in Iran. Al-Kadhi was arrested when he went to Iraq and was sentenced to death. He was released only after the FRG intervened.

This time it will be easier; in the FRG al-Kadhi need not expect the worst: The maximum penalty for illegal arms exports is five years in prison.

Iraqi Embassy in Bonn Center for Weapons Deals

*AU2708124390 Hamburg DER SPIEGEL in German
27 Aug 90 pp 98-99*

[Unattributed report: "Justified Skepticism"]

[Text] To the outside world, the members of the Iraqi Embassy in Bonn engaged in only diplomacy. Secretly,

however, Saddam Husayn's emissaries were busy with big deals: For years the residence on the Rhine was a center for Baghdad's weapons deals.

The most important German weapons suppliers frequently visited the villa at Duernstrasse 33. From the business documents that have been seized, public prosecutors and customs investigators could see that the details for the delivery of ammunition and cannon factories were negotiated in the Iraqi Embassy, as were the contracts for the export of a poison gas plant.

The Iraqis' meeting minutes and schedules include the top addresses of German industry. Representatives of the Leybold company in Hanau and of its mother company Degussa in Frankfurt negotiated with weapons procurers from Baghdad, as did managers of Ferrostaal and MAN.

The business files, which have now been seized at German companies, will probably be fateful for some German guests of the embassy. Last Wednesday [22 August] public prosecutors and Cologne customs investigators arrested a longstanding friend of the Iraqis.

Friedrich-Simon Heiner, manager of Inwako GmbH of Bonn, is suspected of having been an important weapons procurer for the Middle East dictator. Heiner allegedly delivered important hardware for the technical improvement of the old Soviet Scud-B short-range missiles, which were partly transferred to Kuwait over the past weeks. Heiner obviously also acquired in the FRG several hundred ring magnets made of a special alloy, which were shipped by mysterious routes via England to Iraq in autumn 1989. These are said to be important parts for uranium enrichment.

Since the beginning of the crisis in the Middle East, Iraq has had difficulties acquiring weapons products. Following information provided by the Swiss Federal Prosecutor's Office, 250 disks made of maraging [Martensit-aushaertender] steel were seized at the Rhein-Main Airport. That particularly hard material is often used for nuclear technology and in the construction of missiles.

The renowned metal company Schmiedemeccanica SA from the canton of Ticino received the order to work with the special alloy from an Iraqi with the common name 'Ali. In the view of the investigators, the material is probably for the covers and bottoms of gas centrifuges, in which it is possible to carry out a 90-percent enrichment of uranium 235, which can be used for nuclear bombs.

The steel had arrived at the Ticino company in early summer. Without the name of a sender, company owner Gianluigi Martinelli claims. He suspects that the shipment came from the FRG.

That may well be the case. Some findings of the past few months indicate that Iraq pressed for speed in the

development of a nuclear bomb and intensified its shopping expeditions in Germany.

In the meantime, customs officials have stepped up their attention. At Frankfurt airport, for instance, boxes for Iraq were discovered, which, according to the freight documents, contained parts for a dairy facility. The skepticism was justified.

At first sight, the parts were not appropriate for a dairy. In addition, part of the shipment were building instructions for missile technology.

Meanwhile, insiders would have known enough by looking at the name of the sender—it was H and H Metalform from Drensteinfurt in the Muensterland region. The small company, named after the two owners Dietrich Hinze and Peter Huetten, is big in weapons deals with Iraq.

Over the past three years, the Westphalian company has become a valuable helper of Baghdad. On a list of suppliers drawn up by Iraqi weapons buyers in London, which contains more than 40 addresses all over Europe, H and H figures in first place.

H and H supplies Iraq with missile bodies, has sent nuclear experts to Iraq, trained expert staff for missile technology, and delivered machines for the production of uranium enrichment facilities. According to the latest findings, Iraq is currently producing gas centrifuges in the Taji armament complex with the help of H and H machines. Close by, grenades are produced, for which the Iraqi negotiators ordered machines at Huetten in 1987.

Hinze and Huetten fooled the authorities responsible for granting export permits for years. They had little to fear. So far the activities of the two profiteers have only been strained by a financial penalty of about 2,000 German marks for an illegal deal with Brazil.

Last year the federal prosecutor general in Karlsruhe instituted proceedings against Hinze and Huetten on suspicion of intelligence service activities, which were discontinued in October. It was not possible to prove any cooperation with the Iraq intelligence service.

At H and H the Iraq connection also worked without conspiracy. How good the connections of the Muensterland company are with the top people in Iraq is proved by a legitimate order: H and H had a steel company near Muenster build one of the most imposing monuments in the Middle East for dictator Husayn.

The ruler served as the model. Two casts of his arm, 40 times enlarged, hold two gigantic swords high in the sky over Baghdad. On 8 August 1989 Husayn, on horseback, inaugurated the monument, which is 74 meters wide and 34 meters high.

That was a clean deal for H and H. Its other activities will probably not have any legal consequences, either. After intelligence services and also the Federal Office of

Criminal Investigations [BKA] had repeatedly pointed to the company, in the middle of last week the Muenster Regional Finance Office finally agreed to search the company's offices.

It was little more than a lazy compulsory exercise. "What should there be to find after so many months?" a BKA investigator asked.

Arms Deals With Iraq, Libya Detailed

AU1109145390 Hamburg DER SPIEGEL in German
10 Sep 90 pp 112-118

[Unattributed report: "The Tip-Off Hit the Bull's-Eye"]

[Text] On 9 August, Jordanian businessman Sadeq Qadoumi [spelling as published] received an urgent letter from Germany. Kiel businessman Klaus Weihe wrote "I am very happy to be in contact with you again." An important cargo has to be forwarded to "our friends."

The man in Amman immediately knew that it would not be an easy cargo: 30.5 tonnes of steel pipes, a turning lathe, including spare parts, and "maybe a few more things" are a lot of stuff, if—which is obvious—they have to be taken to Iraq evading all checks. Weihe wanted to conclude the deal very discreetly (value: 653,851.66 marks): "Only from fax to fax."

On 12 August, Qadoumi gave his okay: "Cooperation is possible." Details were to be discussed at a meeting. The Jordanian asked for a large surcharge to cover risks: A fee of almost 100,000 marks, excluding transport costs, of course.

However, the shipment to the NASSR State Enterprise for Mechanical Industries, a department of the Iraqi War Ministry, will probably not be carried out. State prosecutors have discovered this deal through another Iraq-related case.

Investigations of Weihe were initiated in the middle of August, because, along with his partner Friedrich-Simon Heiner, of the Inwako GmbH company of Bonn, he is said to have provided assistance for Baghdad's missile project 1,728. With this project the Iraqis intend to optimize Soviet Scud-B-missiles technology through more efficient carrier systems.

For this purpose Iraq has bought components and know-how in the entire West, and particularly in the FRG. FRG Economics Minister Helmut Haussmann has confidentially told the economic committee that the companies involved are mainly "medium-sized German enterprises." Apart from Inwako and company head Heiner, who has meanwhile been arrested, Haussmann also mentioned the companies Havert Handelsgesellschaft GmbH and Heinrich Mueller Maschinenfabrik GmbH of Pforzheim.

According to the information of Western intelligence services, orders are still being received despite the

embargo. Unless the state prosecutor happens to intervene, supplies continue via obscure channels. Only prices have gone up.

The Federal Intelligence Service (BND), the CIA, and the English and Australian intelligence services have informed the FRG Government at short intervals about shady German arms deals in the Middle East crisis region. The BND alone has supplied information to Bonn in this connection in 30 instances since August 1989.

Last week, U.S. Republican Senator Jesse Helms presented George Bush with a list of German companies involved in arms deals with Iraq. The senator basically based his information on the table that was published in DER SPIEGEL of 6 August 1990.

Yet Iraq is not the only partner in these negotiations. Only two weeks ago, the Chemical Industries Association warned some of its companies against "intermediaries and middlemen" who are currently buying primary products for nerve gas on behalf of Libya.

In a letter of 24 August it was stated that there is confidential information that emissaries of revolutionary leader Mu'ammar al-Qadhafi "are particularly interested in getting hold of thionyl chloride, phosphorus (III) chloride, chlorobenzene, chloroethanol, and sodium sulphide."

Even cases of German arms deals with Iran are increasing. The mullahs are also interested in setting up new poison gas kitchens. Via an Iranian state enterprise in Duesseldorf, Tehran has ordered 3,400 tonnes of thionyl chloride, a primary product for mustard gas. On 15 January, the U.S. Embassy in Bonn reported that a shipment of sodium fluoride, a primary product for poison gas, had been sold to Tehran by a West German company. After some diplomatic controversies, Iran declared it was ready to send back this cargo.

Iran is currently constructing a mustard gas plant. According to information in Bonn, the plant is being set up by a company from the Netherlands.

Investigators even suspect that a German businessman might have supplied Iran with the basic equipment for the production of bacteriological weapons. Yet, it has been suspected that Iraq also received that dangerous laboratory weapon. According to BND reports, a German company has supplied the incubators that permit the production of bacteriological weapons to Baghdad; according to tip-offs by the FBI, another company is said to have provided the necessary substances.

German export expansionism obviously does not stop at anything. The only thing that counts is profit. Virtually anything is delivered, ranging from a cannon factory to know-how for the nuclear bomb.

Only the intelligence services sometimes manage to make it possible for those in power to penetrate the

almost impenetrable thicket of banned deals. In the course of its top secret investigations the Pullach-based BND has maneuvered itself into a shady light.

At a secret meeting in Bonn last Thursday [6 September], Paul Muenstermann, the deputy head of the BND, admitted that its investigators are involved in the activities of German poison gas traders. In the years 1987-88 there were a great number of connections with people who were arrested three weeks ago because of their activities in Iraq.

According to information received by DER SPIEGEL, at least three of the alleged poison gas traders have temporarily cooperated with the BND. Manager Peter Leifer of the Hamburg Water Engineering Trading GmbH (W.E.T.) has been part of the BND staff in Iraq since 1986.

The man, who worked for the Preussag concern until the mid-1980's, supplied the BND with intelligence material on Iraq. The German-Iraqi al-Kadhi, another W.E.T. manager, is said also to have worked for the BND. However, the BND has denied that al-Kadhi was one of its agents. A new scandal, which might even affect people in Bonn, is emerging. The W.E.T. company has supplied Iraq with 58 tonnes of primary products for the production of the nerve gas tabun. In 1986, plants for the production of poison gas were shipped to the Iraqi city of Al Falluja. The planned daily production was 17.6 tonnes.

In Baghdad the Hamburg arms and intelligence dealers were highly respected as specialists. A four-member W.E.T. delegation, headed by Leifer, was received by 14 Iraqi project managers for a four-day meeting in the middle of March 1987.

Even when the Darmstadt state prosecutor and the "Iraq Special Committee" of the Cologne Customs Criminal Institute were investigating W.E.T., at least Peter Leifer continued to work for the BND.

A high-ranking BND man told DER SPIEGEL that his organization needed Leifer "for collecting information." Yet, the "intelligence service does not identify itself with what people do outside this sphere. I think it is the same as if we were to penetrate the KGB. This does not mean that we accept the entire policy of this organization."

This case is a case in point for the complex interconnections between politics and the armament lobby. People deceive and intrigue. As soon as a new scandal is in sight all involved try to cover everything up. All that matters is somehow to get through it all.

"If we had had even a single clue," Bonn's Economic State Secretary Erich Riedl (Christian Social Union) states with agitation "if certain companies had declared their readiness to build poison gas plants in Iraq, they would not have had the slightest chance of even reaching the airport."

Yet the chronology of the poison gas case tells a completely different story.

In 1981, the Pilot Plant, a sister company of the Hesse-based company Karl Kolb KG, began to construct a poison gas plant in the Iraqi city of Samarra. In May 1982, an engineer of the Preussag concern told the German Embassy in Baghdad that this plant was intended for the production of poison gas at a later date.

His tip-off certainly had a powerful effect. When the Preussag man was on home leave a little later, he was suddenly sacked. Said the former Preussag employee: "My tip-off obviously hit the bull's eye." Besides, the chief in Baghdad was the then Preussag representative al-Kadhi.

Two years later, the CIA sounded the alarm, and THE NEW YORK TIMES reported at length about the German poison gas plants. For Martin Bangemann, of the Free Democratic Party of Germany, who was economics minister at the time, it was a clear case: Nothing but "professional jealousy" on the part of the Yanks.

Two so-called experts, whom Bonn sent to Samarra, failed to discover anything extraordinary. Washington bombarded the German economic attache with information. From 1984 onwards even the W.E.T. people were involved in the deals.

Finally in 1986, the Darmstadt state prosecutor opened an investigation. Finally, three weeks ago, seven managers were imprisoned because of the transactions with Iraq.

Now that even Riedl knows it, he still rejects any responsibility: "Once you are out of city hall, you probably know more."

The ritual of the politicians is as simple as it is phony: After the affair in connection with the Libyan poison gas plant at al-Rabitah, the FRG Government pompously announced that it would rigorously tighten the Battle Weapons Control Law.

Yet once the uproar had subsided, the strict passages of the draft law were again watered down, and the minimum penalty for illegal dealing with nuclear, bacteriological, and chemical weapons was reduced from two years to one. Moreover, those who got involved in such a deal "unintentionally" may get away without punishment if what they did "furthered" the undertaking only "insignificantly."

Even the regulations on the production of chemical weapons were watered down. Until July 1989 exporting without a license plants that are "suitable" for the production of poison gas was banned. These regulations were extended and now, in order to fall under the export ban, such plants must be "particularly suitable."

With the current danger of a war in the Middle East, those calling for severer laws can again make themselves heard in Bonn—until things change again.

Not a big risk for the suppliers of controversial merchandise. A total of 37 preliminary investigations have been opened all over the FRG, involving more than 170 German companies. Only last Wednesday, a trial started in Hanau in connection with illegal nuclear deals with Pakistan. However, export controls are ineffective. And as soon as the controversial merchandise has crossed German borders, proof of illegal transactions is difficult to furnish.

What makes things even more difficult is the fact that it is easy to deceive the authorities. In the course of the court action taken against four former managers of the Rheinmetall arms factory of Duesseldorf, the judges noticed that export controls were "carried out—if they were carried out at all—halfheartedly and to the advantage of the industry."

A Freiburg businessman was only sentenced to a moderate term of eight months on probation, despite the fact that he had supplied nuclear technology equipment to Pakistan in 1985. The judges argued that the state control authorities made it very easy for him to commit this offense.

It is obviously the intention of the lawmakers to allow those who are involved in such illegal negotiations to get away so easily: Sanctions in the case of infringement of the Foreign Trade Law have so far almost always been fines, which were paid out of petty cash.

It is probably not a coincidence either that it seems to be impossible for the judicial authorities to come to terms with the arms scandals. Since several firms are usually involved in a particular project, state prosecutors from different places begin their work without knowing each other. Usually everybody has to start from scratch.

The Society for Threatened Peoples has long been vexed by the sluggish investigations; this is why in the case of the MBB Messerschmitt-Boelkow-Blohm company the society took matters into its own hands. "In view of the obvious reluctance to act of the criminal investigating authorities and state prosecutors" several members of the human rights organization forced their way into MBB warehouses near Munich last Thursday. The state prosecutor opened investigations on Friday.

The company, which belongs to the Daimler-Benz group, officially delivered helicopters for rescue missions and the transport of important persons to Iraq. Meanwhile, these helicopters were converted to helicopter gunships. The last part of the delivery to the Iraqi Air Force was due in early August—but it was halted by the embargo.

If one does land in court, there is no need to lose heart. Juergen Hippenstiel-Imhausen, industrialist from Lahr and supplier of the poison gas plant in al-Rabitah, Libya, received a relatively mild sentence of five years in prison. He may keep the profit from the illegal deal, which amounts to about 60.1 million German marks.

What Bonn likes to present as the individual act of a criminal enterprise is in fact a deal involving more than 40 companies. So far, no one apart from Hippenstiel has been punished.

Overshadowed by the events in Iraq, the next affair is emerging in the desert state: According to information obtained by the BND and by the British intelligence service, al-Qadhdhafi is planning at least two new poison gas projects.

A German businessman who has left the project reports that the plans for a facility in the desert town of Sabha also speak of "German suppliers." One trace leads to southern Germany. The public prosecutors in Ulm and Stuttgart have been investigating the companies Abacus, Libert Consult, and Rose Import-Export GmbH since March.

The three companies reportedly tried to export a highly sensitive computer control facility from Siemens (Teleperm M). Such a "measuring and control instrument for the automation of a chemical plant" was delivered to al-Rabitah years ago. The Stuttgart Rose GmbH is obviously a company for all circumstances. At a fair in Saudi Arabia, together with the Decotech S.A. office in Fribourg in Switzerland, it presented protective equipment against chemical weapons. Together with Lux Electric Engineering GmbH from Saarland, it is said to have tried to deliver navigation instruments to Libya.

Because of Sabha, investigations have also been made in connection with a subsidiary of the Thyssen concern. According to a BND paper, it delivers hydraulic lifts for the subterranean poison gas plant. However, Thyssen denies any such exports.

Another discovery is still mysterious. This summer Western agents reported that al-Qadhdhafi was planing another poison gas plant under an old fort in Waddan, between the coastal town of Sirt and Sabha, which is 500 km from there.

Germans will probably be involved in this project, too. In Sabha there is already a napalm plant; at the beginning of the 1980's a missile center was established with aid from the FRG, and now the Libyans and their helpers are working on a new missile project called "Ittisalt."

According to information obtained by Bonn, Germans delivered remote detonators for mines to Tripoli, spare parts for the Abu Kammasch chemical plant, and coast guard boats with accessories. According to a BND report, some companies, unimpressed by the Imhausen case, sold spare parts for the al-Rabitah poison gas plant as late as the end of 1989.

Thanks to Western help in armament, the Middle East has developed into a powder keg. The demand for weapons of all kinds is large. Two years after the end of the Gulf war, the old enemies Iraq and Iran are intensively searching for weapons. Experts estimate that both

states will spend \$60 billion over the next four years for military materiel—obviously, an irresistible temptation for capitalists, above all those from the FRG.

The Arab states buy what is available. In Syria and Libya, motorized hang gliders—made in Germany, of course—are highly coveted. The ultralight firebirds are used in guerrilla warfare against Israel.

On 30 November 1989 the United States informed Bonn that German gliders had repeatedly managed to reach Damascus. Last week, one of the builders of these gliders, Norbert Schwarze from the Muensterland region, had visitors from the customs investigation squad. This time, spare parts for Schwarze's gliders were allegedly sold to the Middle East via a roundabout route.

Parts for another exotic but far more dangerous piece of equipment also reached the Gulf via a tortuous route—for Saddam Husayn's super cannon. For years the martial regime has been working on the mammoth mortar with a range of more than 1,000 km. Photographs of U.S. spy satellites show that last year a small prototype of the monster weapon had already fired some shots.

On the basis of "impounded documents," the Bonn Economics Ministry told the Federal Association of German Industry in May that project number 839, called Babylon, comprises two guns, caliber 1,000 mm (barrel length 150 meters) and caliber 350 mm (barrel length 52 meters). Haussmann told the economic committee that there are indications that "a total of six German companies" had produced parts for this project.

The client is mostly the Technical Corps for Special Projects (Teco) from Baghdad. In official letters the company orders steel and pipes for the oil industry.

The striking thing is that for the alleged pipelines an unusual alloy of steel with high proportions of nickel, chromium, and molybdenum is ordered. The degree of hardness of this steel is 140; usually, steel with a degree of hardness of 80 is used for oil pipes.

The orders for the so-called Big Gun were placed in Italy, Switzerland, Great Britain, and the FRG. German investigators now believe that they are onto a hot trail: Saerstahl AG produced 40 tonnes of metal sheets and 14 tonnes of rings from this particularly hard special alloy, which were then exported to Iraq by the Duesseldorf Export-Union GmbH. Again, the customer is Teco, the alleged consignee is the oil industry.

The dimensions of the steel products from Voelklingen also indicate that they were destined for the super cannon project: The rings and roll-bent metal sheets, which were delivered to Baghdad before the embargo, have a diameter of more than 80 cm—the size of the gigantic gun.

Big Gun is being built in the Saad 16 military research center near al-Mawsil. Here Saddam Husayn has meanwhile gathered 3,000 Western hostages in order to protect his pet project against a U.S. attack.

The Germans know their way around al-Mawasil extremely well. Haussmann reported in Bonn that "militarily usable missiles or other armament products are being developed" in this armament facility. The Bielefeld Gildemeister-Projecta GmbH was the general agent for this. About 40 German companies were subcontractors. "The most important German subcontractor" was, according to Haussmann, missile and helicopter expert MBB.

Haussmann's State Secretary Riedl of the Christian Social Union will not be pleased to hear this. The coordinator for the German aviation and space industry is considered MBB's most influential lobbyist in Bonn.

For a long time Riedl denied knowing anything about MBB's participation in Saad 16. In September 1988 he stated in the Bundestag that the FRG Government does "not have any information in this connection." In fact, however, on the orders of the FRG Government, in 1987 MBB was no longer permitted to deliver anything to the Saad 16 project.

Riedl and some other Bonn politicians can count themselves lucky that they do not live in Vienna. Former Austrian Chancellor Fred Sinowatz and his former Interior Minister Karl Blecha, as well as former Foreign Minister Leopold Gratz, also claimed to know nothing: They allegedly did not know anything about illegal exports of cannons to warring Iraq.

However, their insistent statements were to no avail. The three comrades will be indicted for abuse of office, as the Justice Ministry has announced.

Box, p.118

Hot Goods for Libya — Companies Whose Products, Plans, and Other Services Were Used for the Construction of the Poison Gas Plant in al-Rabitah in Libya, According to the Findings of the Investigation Authorities

From the FRG

Planning, Construction, Transactions:
GfA Gesellschaft fuer Automation, Bochum; IBI Engineering, Frankfurt; Imhausen-Chemie, Lahr; Salzgitter Industriebau, Salzgitter.

Contractors, Subcontractors:
Alexander Wiegand, Klingenberg; Alfred Teves Klimatechnik, Frankfurt; Berkefeld-Filter Anlagenbau, Celle; Bopp and Reuther, Mannheim; Brown Boveri-York, Mannheim; Calor-Emag, Ratingen; Digi Table Thielen, Essen; Eisenwerke Dueker, Laufach; Endress and Hauser, Maulburg; Exner Chemie-Ventile, Neuss; G.A.B. Neumann, Maulburg; GEA Wiegand, Ettlingen; Heinkel Elektro-Aggregate, Hamburg; Industrietechnik Kienzler, Vogtsburg-Achkarren; John Zink, Frankfurt; Kaemmer Ventile, Essen; Rhenus, Cologne (forwarding agency); R. Stahl Foerdertechnik, Ettlingen; Salzgitter Industrie-Elektrik, Cologne; Siemens, Essen; Schott

Glaswerke, Mainz; Unielektro, Eschborn; Werner Hemmers Elektro-Schaltanlagen, Essen; Wilhelm Pesch Armaturen, Cologne-Godorf.

From Abroad

Planning, Construction, Transactions:
IBI Engineering, Zug/Switzerland; IBI Holding, Zurich/Switzerland; Imhico, Zurich/Switzerland; Imhico, Vaduz/Liechtenstein.

Contractors, Subcontractors:
Capsulit, Milan/Italy; Cross Link, Antwerp/Belgium (forwarding agency); Etamoc, Montceau-les-Mines/France; IG Trading, Antwerp/Belgium (forwarding agency); Termoindustriale, Alba/Italy;

Companies whose chemicals delivered to Libya were suitable for the production of poison gas, according to the findings of the investigation authorities:
Atochem, Fos-sur-Mer/France; Chemische Werke Lahr, Lahr/FRG; Hoechst Italia, Rome/Italy; Kanematsu-Gosho, Tokyo/Japan; Saeurefabrik Schweizerhall/Switzerland; Sung Fai, Hong Kong.

Involvement in Brazil-Iraq Nuclear Deal Reported

AU0509094690 Frankfurt/Main FRANKFURTER RUNDSCHAU in German 5 Sep 90 p 1

[Helmut Loelhoeffel report: "Nuclear Aid for Iraq Was Known"]

[Text] Bonn, 4 September—The Federal Government was informed about the "objectionable transfer of nuclear know-how" from Brazil to Iraq six years ago. This is stated in a report of the Federal Intelligence Service [BND] that FRANKFURTER RUNDSCHAU has obtained. It was written in March 1984 and was submitted to the Federal Chancellor's Office, the Foreign Ministry, and other ministries.

This paper is explosive because the Brazilian nuclear program "is mainly based on cooperation with the FRG," as the BND has confirmed. In the Bundestag last year, the Christian Democratic Union/Christian Social Union and the Free Democratic Party turned down the opposition's moves to terminate the German-Brazilian nuclear agreement of 1975. That would have been possible as of 18 November 1989. Because the government failed to use the right to terminate the agreement, it was automatically extended for another five years.

The BND report on the controversial Brazilian nuclear energy program says: "The cooperation agreement with Iraq has also been viewed with suspicion." This is a secret agreement which was signed between Brazil and Iraq in 1979-80. Based on this agreement, Brazil apparently supplied enriched uranium and equipment for laboratory tests to Iraq for years.

The BND knew about this. It says in its report: "A hint received in 1983 proves that in cooperation with Iraq, Brazil also supplies goods to the Iraqi nuclear energy

commission.” Meanwhile, several newspapers have quoted witnesses who have confirmed these facts but prefer to remain anonymous.

Herbert Bachmaier (Social Democratic Party of Germany), chairman of the Bundestag nuclear investigation committee, told FRANKFURTER RUNDSCHAU that the nuclear alliance between Brazil and Iraq has confirmed ex post facto that “it was correct for us to call for the termination of the German-Brazilian nuclear agreement.” Now it must be feared “that with German help, through the transfer of technology and know-how, Brazil has become the bridgehead of weapons-grade nuclear supplies to the Third World.”

Investigation of Firm Supplying Metal to Iraq

*LD2008140590 Hamburg DPA in German 1321 GMT
20 Aug 90*

[Excerpt] Duesseldorf (DPA)—The Duesseldorf State Prosecutor's Office today confirmed that, contrary to an earlier statement, an investigation has now been launched against the firm Export-Union GmbH. A spokesman of the authority declared after an inquiry that there are “new findings” in connection with alleged arms exports by the firm to Iraq. The Export-Union is said to have supplied special sheet metal to Iraq to be used to build gas centrifuges for uranium enrichment. This is regarded as an essential precondition for the production of the atomic bomb. [passage omitted]

NVA Helped Equip Iraq for Nuclear, Chemical Warfare

*LD1808085590 Hamburg DPA in German 0745 GMT
18 Aug 90*

[Text] Hamburg (DPA)—The GDR's NVA [National People's Army] helped Iraq prepare for chemical warfare, according to Hamburg newsmagazine DER SPIEGEL's information. The magazine reports in its latest edition that NVA officers oversaw the construction of a field for nuclear, chemical, and biological [ABC] weapons maneuvers near Baghdad in the early 1980's.

Command towers, special buildings with railway lines for decontaminating vehicles, and a firing range with

dummy houses were built at the top secret site by Iraqi construction firms in accordance with NVA plans. The ABC weapons exercise area in Storkow in Brandenburg, which has recently been inspected by the Bundeswehr, served as a model.

Colonel Rolf Buettner [spelling as received], head of chemical services at the East Berlin Ministry for Disarmament and Defense, confirmed to SPIEGEL that “members of the Iraqi military” had been in the GDR “for consultations.” At that time four NVA officers, including the former head of the ABC defense forces, worked in Iraq.

There were exercises with Soviet reconnaissance vehicles, automatic chemical weapons detectors, and ABC protection systems for tank systems during simulated gas attacks in the desert. Buettner stated that there had been “no handing over of chemical weapons.”

SWITZERLAND

Companies Investigated for Illegal Sales to Iraq

*AU2208075990 Hamburg DIE WELT in German
22 Aug 90 p 8*

[Text] The Swiss Federal Prosecutor's Office is investigating two Swiss companies suspected of having illegally delivered parts for the production of nuclear weapons to Iraq. As the authority announced in Bern yesterday, the two companies involved are Schmiedemeccanica in Biasca (Ticino) and Schaeublin SA in Bevilard (Bern Canton). The two companies also confirmed that they are being investigated. However, Schmiedemeccanica denied that the metal parts it delivered could be used for nuclear purposes. Schaeublin stated that a machine-tool seized at Frankfurt airport does not come from its production. Even though machinery was delivered to Iraq, it was never delivered via Frankfurt.

Experts assumed that the parts produced by Schmiedemeccanica could be used as so-called endcaps—covers and bases for gas centrifuges for the enrichment of uranium. The machine produced by Schaeublin is used for the processing of these endcaps, it is said.

IRAQ

Saddam's 'Secret' Arms Ring Reported

[Editorial Report] London BBC Television Network in English at 2030 GMT on 3 September, in its "Panorama" program, carries a 40-minute report by Jane Corbin, entitled "Saddam's Secret Arms Ring." Jane Corbin introduces the program by saying, "A month after Saddam Husayn crushed Kuwait, Western forces prepare to face his chemical arsenal. But the lethal technology they face isn't all Iraqi: It comes from Britain, America, and Europe. We uncover the story of Saddam's plot to acquire the West's chemical, nuclear, and missile secrets and how British and European countries made that possible. 'Panorama' tonight reveals an Iraqi arms operation that had its headquarters not in Baghdad but here at this office in West London. And we'll be asking why the British Government did so little to stop Saddam's secret arms ring."

Corbin then begins her report: "This discreet office in London is a key part of Saddam Husayn's arms network. The two men on the right have been procuring the Western technology Iraq needs for its weapons. The Technology and Development Group, TDG, has been acquiring hardware to develop Iraq's chemical, missile, and nuclear arsenal. It has also been buying into Western companies." [video shows two men walking out of office building]

Dr. Amatzia Baram, identified by screen caption, describes the Iraqis. "They know how to work," he says, continuing, "In other words, they don't...you don't see their fingerprints, which is very important. They buy companies, and the company belongs to them, but it doesn't appear on the surface at all."

Corbin then notes, "There are three men behind TDG's London operation: (Hannah John), a former senior engineer in Iraq's military factories, (Admin al-Amiri), his codirector and the chairman of TDG, the shadowy figure of Dr. (Saffa al-Habubi). He's a key figure in (NASA), the industrial establishment involved in Iraq's nuclear and missile program. He operates from this Baghdad building, where the arms program is coordinated by Brigadier General (Husayn Kamiel), son-in-law of Saddam Husayn. TDG in London is the front for Saddam's arms network. In June, TDG's attentions turned to Lugano, where the Iraqis came to buy into a Swiss company that's now known to have exported nuclear parts to Iraq."

Corbin adds, "(Robert Keshauver), TDG's then financial director was the man sent on the Iraqi buying mission. He since resigned as financial director and says he has nothing to do with the policy of the company. This is Mr. (Keshauver)'s handwritten account of his trip on behalf of the Iraqis to buy into the Swiss target company, Schmiedermecanica."

An unidentified off-screen male voice reads from (Keshauver's) account, "At nine in the morning I had a meeting with a lawyer and Mr. Romano, of Schmiedermecanica, as arranged. In the afternoon on the 8th of June we visited Banco del Sempione, to complete the transfer of shares and signing of the loan agreement." Corbin notes, "TDG's chairman in Baghdad, Dr. (Saffa), wants to acquire an 18-percent stake in Schmiedermecanica." The off-screen voice continues, "I have obtained a declaration from the lawyer that he hold the shares in trust for Dr. (Saffa)."

Corbin continues, "The Iraqis paid 3.4 million Swiss francs for their stake in Schmiedermecanica and planned to buy another 11 percent. Schmiedermecanica is an engineering firm in the village of Biasca, outside Lugano. They now admit that the Iraqis have bought a stake in the firm. Schmiedermecanica specializes in precision forging of high-tech components and admits it exports to Iraq. At Frankfurt Airport two months ago, customs seized Schmiedermecanica parts bound for Iraq. They believe the cargo was destined for the Iraqi nuclear program. The companies say the Iraqi ministry told them the parts were gear forgings, but customs believe the components made of special steel were part of a centrifuge system to produce weapons-grade uranium."

Dr. Gianluigi Martinelli, president of Schmiedermecanica, identified by screen caption, who speaks in German with superimposed English translation, says, "I feel a hundred percent cheated by the Iraqis. And if the end use is what we are now told it is for, then I'm more than glad that the police stopped the cargo in Frankfurt."

Corbin continues, "What happened to Schmiedermecanica is clearly part of an Iraqi strategy to buy into companies with weapons-making capability."

Klaus-Peter Ricke, German customs, identified by screen caption, speaks in German with superimposed English translation. He says, "We know that there are some companies whose capital is owned by Iraqis, or whose managers were born in Iraq and work for Iraq. That is known to us, that is certainly the case with some companies." Ricke is asked by an off-screen correspondent, "Have you ever heard of a company called TDG?" Ricke responds, "Yes, I know the company." The correspondent asks, "Do you know if this company is involved?" Ricke replies, "I don't want to comment on specific companies."

Corbin reports, "TDG, from its office in London, hasn't just been acquiring stakes in foreign companies. It has also been procuring vital components for Saddam's chemical, missile, and nuclear programs. The American Department of Defense, in an official statement has informed Panorama that TDG is part of an extensive network of Iraqi-owned or controlled front companies used to acquire nuclear technology. Yet this company

has been operating here for more than two years and has carried on unhindered, even after the invasion of Kuwait."

Gordon Brown, Labor Trade and Industry spokesman, identified by screen caption says, "It is now clear that the Technology Development Group is no ordinary company. It is controlled partly by officials from Iraq. Not only does it own companies within the UK, but it clearly is operating as a procurement executive for Iraq to buy weapons worldwide. The tragedy is that this has been happening from London, that nothing has been done to stop the operations of the company, despite all the warnings and even today, the company is trading without action having been taken. We have urged action on this for some time. It should happen now, indeed it should happen immediately."

Corbin reports, "On July the 17th, the Iraqi Embassy in London held a reception. Iraqi-British relations have recently been strained and the Foreign Office says it has taken a careful attitude to Iraq since the execution of British journalist (Fazzad Bazhoff). But Iraq is wealthy and influential and a minister was prepared to attend the party just two weeks before the Kuwait invasion. Britain has an arms embargo on Iraq, but this Middle Eastern country has been an important trading partner, as the number of British businessmen at this party shows. (video shows scenes from embassy party, William Waldegrave in attendance)

"Engineer Dr. Chris Cowley worked in Iraq in 1988 and '89; he's now facing charges in the supergun affair. He says not only did the Iraqis procure arms abroad, but Baghdad was full of Western businessmen after a slice of the arms and technology trade."

Cowley, identified by screen caption says, "This was a very, very large cake that had to be cut up. We were talking about not millions or hundreds of millions, we are talking about billions of pounds, and every European government wanted their share of that cake, and Britain certainly got their share." Corbin asks, "With hindsight, do you think perhaps we were too free and easy with arms and technical expertise?" Cowley replies, "Well, I think that's...that's a political decision that has to be made but it may well have been that towards the end, the commercial dog was wagging the political tail, as it were."

Corbin reports, "Saddam Husayn has never hidden his desire to attain military preeminence. Though never in the Army, he likes to play the part of supreme commander. He sees himself as a descendent of the great warrior kings of this ancient region. Professor Anatzia Baram, who's advised the American State Department on Iraqi affairs, believes Saddam Husayn has made his top priority acquiring Western technology for military use."

Baram says, "The Iraqi army generals, as the president himself, see military power as the single most important element within science and technology and advancement

of civilization. To them, civilization is like to us, a very wide, broad area but the single most important element within that, is the military—it's the centerpiece of their whole approach to civilization."

Corbin continues, "Since Saddam came to power 11 years ago, Iraq has spent an estimated 30 billion pounds on arms. The Soviet Union, Iraq's former ally provided the basic hardware. In the West, France has been Iraq's biggest supplier, selling millions of pounds' worth of equipment to Saddam's regime."

Dr. Seth Garus of the Washington Institute for Near East Policy, identified by screen caption, says, "The key question is not who supplied them, but rather who did not supply them because basically they were going over the entire world and buying weapons and military production capabilities from whoever would sell it to them, if they had something that the Iraqis wanted."

Corbin then notes, "Iraq needed all the arms it could get in the eight-year Gulf war against Iran. Technically the West, except France, imposed an arms embargo on both sides but Saddam was viewed in Washington and Europe as a force for moderation, his army a bulwark against the Iranian fundamentalists. The West saw Iran, not Iraq, as the threat to its oil supplies. So arms were allowed to filter through to Iraq during the war and after that favoring of Iraq continued, allowing it to rebuild its industry and hence, its military capability. Richard Murphy was in charge of American policy toward Iraq under the Reagan administration. He still defends the position taken prior to the invasion of Kuwait."

Murphy says, "And I still think that Iraq would have turned into a state with whom one could have had very mutually profitable exchanges, so Britain was obviously motivated by the hopes of that future market; America was as well. Where we were caught by surprise was that the Iraqi ambitions to be a regional leader, which they had put on the shelf during the war with Iran, that those ambitions came back in full flower, they were revived with an amazing speed in the two years that have expired since the cease fire with Iran."

Corbin reports, "Even when Saddam used chemical weapons on his own people, Washington did not reverse its policy on Iraq. In the town of Halabjah, an estimated 5,000 Kurdish men, women, and children were gassed in 1988. But the response in Washington and in Europe was muted. And the few congressmen in America who advocated sanctions found their proposals blocked by the administration."

Howard Berman, U.S. Congress foreign relations committee, identified by screen caption says, "We didn't react to the use of chemical gasses on his own people, we didn't react to the smuggling of nuclear weapons technology out of the United States and Great Britain, we did not react to the fact that he gave sanctuary to known terrorists. I think he thought we would...he was always going to have a favored spot in our eye and that he could do anything with impunity."

Corbin reports, "Israel is the one country which has always been most sensitive to the threat from Arab neighbors. It has consistently warned of Saddam's potential for military aggression. After the invasion of Kuwait, Israel's warnings seem vindicated."

Moshe Arens is then shown, noting, "We have been aware of the danger that that man represents to us and to the region and to the world. We tried to call that to the attention of many people but there were great illusions. He threatened Israel five months ago with destruction by his chemical weaponry, he said he would wipe half of Israel off the map. We at that time spoke to representatives of countries friendly to Israel, to Western European countries and we said here's a clear and imminent danger and unless this man is stopped, he will think that he has been given legitimacy for the use of chemical weaponry. Unfortunately, the real awakening took place only after he invaded Kuwait."

Corbin then continues, "Israeli tank exercises. [video shows exercises] These war games may soon be for real. But if there's conflict in the Middle East it won't be conventional weapons—tanks and artillery that determine the outcome. The battle will involve Iraqi nonconventional arms: chemical weapons and ballistic missiles built with Western technology."

Arens is again shown. He says, "He has chemical and he's going to nuclear [weapons]. In the hands of a man like Sadddam Husayn, who does not share the values that we have in the Western world, who has used chemical weaponry against combatants and against civilians, I think that kind of weaponry in the hands of that man is a danger to the entire world."

Corbin notes, "Western companies have helped Saddam develop his chemical, missile and nuclear arsenal in secret sites throughout Iraq. Three plants are producing deadly chemical and biological weapons, four complexes are involved in the research, development and testing of missiles, and at least four sites are involved in a Uranium-enrichment program to build nuclear weapons. Iraq is further advanced in its nuclear program than the West had realized. Saddam Husayn has developed this sophisticated arsenal of nonconventional weapons with the help of Western countries. The West is now counting the cost of allowing the flow of weapons technology to Iraq. In Germany, eight men have been arrested for helping develop chemical weapons. Up to a thousand German companies may have been involved in illegal arms exports. Opposition leaders accuse the government of failing to act."

Norbert Gansel, German parliamentary investigation into arms sales, identified by screen caption, says, "German authorities have known since 1984 that there are serious indications for the involvement of Germans and German companies for the development and production of poison gas in Iraq. It took them three years to start investigations by a state prosecutor. It took another three years to make the first arrest."

Corbin reports, "Saddam's chemical weapons have been developed with the help of German engineers at the Samarra plant. Four years ago, 'Panorama' first revealed the existence of Samarra with these satellite pictures of the site north of Baghdad. [video shows satellite photos] We detailed the extent of Iraq's chemical weapons program and the part that Western companies had played in it. This German technician worked at Samarra, installing air conditioning. Others of his countrymen helped Iraq produce the chemicals for weapons. Bernd Mayer has now spoken for the first time of his exposure to hydrogen cyanide, the deadly gas used in world war one."

Mayer, speaking in German with superimposed English translation says, "I worked here, between P-11 and P-12, next to a neutralization building built by us. [video shows blueprints] And from P-7 came these fumes, these almonds smell. One afternoon my work colleague felt sick because he had been breathing in the fumes of hydrogen cyanide and prussic acid all morning. It was clearly noticeable: We had breathing problems in our chests and lungs. We even had to take a couple of days off work." Corbin asks, "What conclusion did you come to from what you found in the area?" Mayer replies, "On the basis of the two names I jotted down, names from chemical bins, I can remember one of the chemicals very well, but not the other. I read in a report that you can produce mustard gas from these two chemicals." Corbin asks, "Do you think they were making mustard gas then?" Mayer says, "Well, I can't be a hundred percent sure." Corbin asks, "But you suspect they were." Mayer replies, "Yes, I believe they were. You wouldn't need such high security there, if you were producing fly spray, would you?"

Corbin next notes, "Iraq's missile program, revealed last year by Panorama, is centered on (Saad) 16, near the northern town of Mosul. We explained how (Saad) 16 was equipped by German and Austrian companies, with state-of-the-art machinery. The high tech laboratory and testing equipment was used for developing missiles and their warheads." She asks Dr. Chris Cowley, "What was your impression as an engineer visiting (Saad) 16, which was one of the major research sites for missile development?" Cowley replies, "Well, it was absolutely brilliant. I'd never seen anything in Europe that compared with that particular research facility. I'd never seen any university in Europe, and specifically in England, that had such superb equipment. At the time I was there they didn't have the manpower to utilize what was available but the various departments were being set up and again, there had been no restriction on the amounts of money that are being used. The building was absolutely ideal because there's a whole atmosphere about that place when you walked in you thought this is impressive."

Corbin reports, "Last December, the research work at (Saad) paid off for the Iraqis. Baghdad surprised and alarmed the world by launching a missile adapted from basic Russian SCUD rockets. There are more sophisticated Iraqi missiles under development, with ranges they claim, of up to several thousand kilometers."

Dr. Seth Carus says, "As they get longer range missiles, they will have unique capabilities that they can't achieve through use of aircraft. Now the key is that someday they are going to be able to fit these weapons with warheads, including chemical warheads, nuclear warhead, and possibly biological warheads as well. All of these capabilities are a potential danger to a lot of people, not do much because you necessarily know somebody's going to fire a missile at you, but because it's going to influence the behavior of every country that might be a potential target."

Corbin continues, "Panorama explained the involvement of MBB, the German aerospace giant in Iraq's Condor missile program. Now, we've established that as part of the deal, Iraq received warhead technology tested by MBB, including an advanced, and particularly lethal version called a fuel-air explosive. These are MBB test documents for the FK 120, the company's name for its joint missile project with Egypt, who are partners with Iraq. [video shows documents] The FK 120 documents refer to testing a fuel-air explosive warhead, and FAE. And now, MBB have confirmed to 'Panorama' that paper studies were handed over to the customer, although MBB subsequently pulled out of the project. An FAE explodes with massive force."

David Shaw, of MILITARY TECHNOLOGY MAGAZINE, identified by screen caption says, "Fuel-air explosives are an extremely nasty and devastating weapon. When they are ignited, it creates a fireball and pressure effect that in American tests, has been proven to be five times greater than TNT. For the Iraqis, possessing this weapon, they will be the first Third World nation to have it. They could use it to breach minefields, to penetrate through fortified positions, more importantly against Dhahran Air Force base. They could use it and it would be absolutely devastating against aircraft and troops in the open."

Corbin continues, "To make warheads or any other weapon, Iraq needed the actual machines to manufacture arms. Britain is world famous for machine tools, and computer-controlled lathes—the basic building blocks of any industry. Saddam needed these and so he turned to Britain."

Dr. Chris Cowley says, "His priority would certainly be to attain the necessary machine tools and production and process know-how to have in-house capability." Corbin asks, "Why?" Cowley responds, "Then he has total independence. If you impose an arms embargo against him, then it has virtually no effect on his day to day requirements. OK, certain sophisticated components he still will be dependent from outside sources, but his ability to sustain his Army on a day to day basis is...cannot be affected any longer by an arms embargo."

Corbin reports, "(Roy Rex) was the man who first helped Iraq acquire British machine tools. He's an English businessman who, with an Iraqi partner set up Mead International, a technical consultancy to win contracts

with Iraq. Bonn Airport, summer 1987. Mead International had arranged for six British machine tool manufacturers to attend an important meeting. One of the companies there was BSA."

Keith Bailey the chairman of BSA Machine Tools, identified by screen caption says, "Well then we had a call to go to the Iraqi Embassy in Bonn to discuss the capability of our machine tools and of course there we met most of the other machine tool manufacturers in the United Kingdom and Europe, who were also competing for contracts at that time."

Corbin reports, "They met the Iraqi commercial attache at the Bonn Embassy. And the result of that meeting was contracts worth many millions. BSA signed a deal for seven million pounds, and the machines received the necessary government licenses for export. But what were they for?"

Bailey continues, "Well, we don't know because when you start off on a contract like that, they're standard machines, they can be useful for producing any parts—motorcar parts or whatever. But, of course when you consider the country's three years or four years into a war with Iran, it's most unlikely it's going to be buying machine tools for anything other than its defence industries, and I'm sure that everyone anticipated that situation."

Corbin reports, "Coventry, home of Matrix-Churchill: Another manufacturer of machine tools. Its directors are British, but it's owned by TDG, Iraq's London arms procurement front. Matrix-Churchill admits they sell machine tools to Iraq, but say they're not intended for military production. But Chris Cowley has been into (NASA), the Iraqi military industrial complex, where Matrix machines are installed. He claims he saw Matrix machines making arms, and their personnel on site."

Corbin asks Cowley, "Did you see British engineers from Matrix, for example, training people locally?" Cowley says, "Yes." Corbin continues, "What sort of things would they be doing?" "On the machine tools that Matrix-Churchill were installing they were manufacturing, 155 and 130 mm artillery shells." "Shells for guns," Corbin says. "Humm," Corbin says, nodding, "And obviously they knew what they were doing," she says. "Well, yes, a shell is a shell," says Cowley, continuing, "It has to be set up, the person who is setting up the machine has to have a drawing, a very, very detailed drawing and that drawing must give you, obviously, all the outline and it must give you the very precise parameters needed to produce the finished product."

Next Peter Allan, of Matrix-Churchill sales, denies the remarks by saying, "If, if those allegations are true, I, I can only say that having been there myself I have never seen either our machines or our engineers involved in such practices. The machines are very versatile. They can be programmed to produce almost anything. Our comment is that we do not supply them for producing armaments or armament components and to that end if

they are then utilizing them for other applications they would need to get hold of the know-how from a third party."

Corbin then resumes her report, "Panorama has obtained internal Matrix documents, which list the company's customers. These show a total of 13 machines destined for (Saad), the Iraqi establishment, which runs the missile program. Corbin is then shown interviewing Peter Allan again. She speaks, "We have also seen documents which make it clear that the company has 13 machines going to the (Saad) establishment. What would you say to that?" Allen replies, "I would say completely untrue." Corbin says, "these machines are listed as 7/48NUB machines. What are those machines?" Allen says, "they are twin spindle relieving lathes." Corbin begins to ask about the machines, Allen interrupts her to say, "And the contact and the site they are going to is called Hutin." "Not (Saad)," Corbin says. "Not (Saad) Allen affirms.

Corbin's report continues, she says, "Matrix-Churchill is now trying to remove itself from Iraqi ownership and find a buyer. They also say they have had no new contracts with Iraq for a year now. However, last year Matrix-Churchill attended Saddam Husayn's international arms fair. The event, held in Baghdad, enabled Iraq to show its own home-produced hardware, much of it developed courtesy of Western scientists and Western companies. And the arms fair was a showcase for foreign arms manufacturers who might hope to do business with Iraq." Corbin continues, "Chris Foss, military editor of JANE's defense publication was at the exhibition." Foss is shown, he says, "This is the official exhibition guide and it shows one of the largest countries exhibiting there, was, in fact, France, but also a number of British companies there, like British Aerospace. And, of course, the largest British manufacturer there was Matrix-Churchill, who showed a complete range of their machinery tools, some of which in fact were actually working at the exhibition." Corbin says to Foss, "Matrix-Churchill would say that their machines are not used for making arms." Foss notes, "Yes, but if you go to other exhibitions like BAEE, you very rarely ever see any machine tools at a defense exhibition. You see the end product but not actually the things that make them so that really did take me by surprise considerably."

The video returns to Allan, of Matrix-Churchill, who says "We exhibited there for a number of reasons. One was we had active government support. We were sponsored by the British Overseas Trade Board, along with a number of other British companies. You have to remember that Iraq is not a terribly sophisticated country in media terms, and therefore you use whatever method you can to promote our products. We have no problem with having sold to Iraq. Because we sold it...all of our products had the correct licenses and the correct approvals. We were actively encouraged by the government to go there; we certainly have not supplied machines for military application. So, no. I don't think it was naive. I think we exploited a market."

Corbin then returns to her report, saying, "We asked the Department of Trade and Industry why they had allowed Matrix-Churchill to continue trading with Iraq. The Department declined to record an interview for 'Panorama' but said in a statement, 'It is not our practice to comment on individual export licensing matters.' And say the DTI they did not sponsor Matrix-Churchill or any other British firm attending the Baghdad arms fair.' But if the government hasn't stopped Matrix-Churchill's trade with Iraq, what has been their attitude with the parent company, TDG?

"Intelligence agencies worldwide have been monitoring TDG's activities for more than a year now. The Foreign Office signaled their interest when last October they blockaded TDG's attempt to buy the (Liafan) factory in Belfast. That would have given Iraq access to carbon composite technology for missile work. But TDG is still operating unhindered out of London.

"However, in America, TDG's activities are part of a major legal investigation. Three billion dollars worth of credits for exports to Iraq were issued by the local branch of an Italian bank. But it wasn't just a banking scandal; the middleman for many of the deals was TDG in London. For a year a grand jury has been investigating whether Atlanta was the conduit for financing Iraqi arms purchases. Paul Van Wedel, the bank's deputy, denies direct knowledge of arms financing. He works closely with TDG and visited Iraq with them."

Van Wedel is shown being interviewed, "In 1989, the trip to Iraq, the person who we met was Husayn Kamil, that's the son-in-law of Saddam. He is the minister of industry and military production. He arranged our schedule for us, where we went, what we saw. And most of the people that we did meet. He is the secret power behind the throne. Extremely aggressive, extremely. Saddam puts a lot of strength into his opinions."

Corbin continues, "Paul Van Wedel ties TDG and its chairman, Dr. (Saafe), to Iraq's top military officials." Van Wedel notes, "Well, Dr. (Saafe), the president of TDG, was the person in charge of (NASA) industrial complex and reported directly to (Husayn Kamil). Now he is working as a consultant for the minister of industry and military production, where (Saafe) now of TDG must approve all contracts for that group before they're awarded."

Corbin continues, "We asked the Department of Trade and Industry why, given TDG's links in Baghdad, they had allowed the company to continue operating in Britain. They told us provided foreign companies abide by UK laws, they are free to trade here. But how carefully have governments monitored whether the law is being broken and have warnings about arms exports to Iraq been taken seriously enough."

Corbin says, "Dr. Steven Bryan is an adviser to the Pentagon on arms exports to Iraq. But his attempt to stop the flow of high technology were thwarted by the

American Commerce Department, responsible for promoting trade, right up to the invasion of Kuwait. Consarc is a specialist furnace company, which operates from Scotland in America. Iraq ordered two furnaces from Glasgow and three from the USA. The DTI cleared the Scottish furnaces for export. They were only stopped when 'Panorama' told them of their potential nuclear use." Dr. Bryan says, "It was clear that the purpose of these furnaces, that were intended to be shipped to Iraq, was for their nuclear program. We knew that because their furnaces were very high temperature and specially built and not a common, run-of-the-mill type furnaces for normal industrial application. So we were sure that the nuclear effort was exactly what this was intended for." Corbin continues, "Consarc says the Iraqis told them the furnaces were for casting metal hip joints. But the company also warned the American Commerce Department that the equipment could be used, unmodified, for melting zirconium, the principal use of which was nuclear. Yet Consarc obtained clearance to export the furnaces from the American authorities and from the British ones, too."

Bryan continues, "It's our understanding that the Department of Trade and Industry, in the UK, had approved this transaction and would not interfere to prevent its being shipped to Iraq. In fact, I don't believe that the Department of Trade and Industry, just as the Commerce Department, ever investigated the nuclear capability involved in this furnace transaction, or looked into any element of the transaction, whatever. It was the Commerce Department; it was their failure, almost a criminal failure. Their failure to act, their failure to take notice, their failure to investigate this case, which is so appalling to me and to any other observer."

Corbin introduces remarks by Howard Berman, of the U.S. Foreign Relations Committee, by saying, "The Consarc saga shows that where Iraq is concerned, trade considerations have sometimes outweighed security and political concerns." Berman says, "There is no doubt that in the Bush administration, and I'd have to say the same thing applies in Great Britain under Margaret Thatcher's regime, the positive belief in trade and exports, and business overall, tends to drive policies so that George Bush's and Jim Baker's natural hostility to economic sanctions as a tool of foreign policy let a lot of this develop; trends and acquisitions, and purchases that we could have stopped if we had been willing to use economic sanctions more actively and earlier."

The video next changes to an embassy reception, with Corbin continuing, "In July, when the Iraqis held their embassy reception, the British government was still ruling out economic sanctions. The minister, William Waldegrave in April in the Commons said cutting off British trade credits would not isolate Iraq. The Government had protested against Iraqi abuses. But the official line remained that withdrawing trade credits would only benefit foreign competitors and undermine British business. As Saddam's stance grew more aggressive, British

manufacturers who sought government advice were reassured by the Department of Trade."

Kelth Bailey is shown, saying, "Then in May we went to see a number of manufacturers, major manufacturers in the UK, went to see Lord [name indistinct], trade minister, to say, should we be doing business in Iraq because of the situation? Did the government really want us to carry on doing business there? He assured us, because of the large oil reserves in Iraq and because of the amount of British business there was to do in Iraq that now and in the future we should continue to do so."

Corbin notes that "Just three months after that official endorsement of Iraq, Saddam's ambassador received a very different reception at the Foreign Office, where he'd been called to answer for Iraq's invasion of Kuwait and its refusal to release British hostages."

Next Gordon Brown is shown, saying, "Our trade with Iraq, indeed our trade with any other country, should not deter us from enforcing an arms embargo where we are satisfied that that needs to be imposed for reasons of peace and defense purposes. What has clearly happened is that even when the signs were there, with the Bazon execution with the discovery of nuclear triggers in London, obviously with the Iraqi supergun affair, we in the Labor Party were demanding that export credits be withdrawn, that the government did not act, and perhaps in retrospect will realize that it should have acted."

Corbin concludes that "The price for the West not having acted to deter Saddam has still to be counted, in terms of money and perhaps lives. But the forces now imposing a comprehensive arms embargo on Saddam know the past failure to prevent the flow of Western technology has meant he can now make his own weapons."

Dr. Bryan is shown, he says, "There was a network of 'Technobandits' supported by Baghdad, that was collecting technology illegally from Western Europe and from the United States. We knew about that but we let it go on and we didn't interfere with it in any serious way. We fed Saddam Husayn's military ambitions. In effect, we appeased him. This appeasement has created the kind of monster that haunts us now."

Gordon Brown concludes by saying, "It would be tragic if weapons that have been procured by Iraq from Britain in the 1980's and indeed in 1990 are now being targeted on the British soldiers and the British forces near Iraq and around Iraq. And the lessons that we have got to learn are that the tightening of an arms embargo has got to be effective, that we must look at the methods that have been used by powers to acquire arms and we must certainly not allow companies like TDG to be based in, procuring arms throughout the world from a base in London. Even now I think the government ought to act immediately to ban the company from operating in Britain."

Corbin concludes her report, "last week the defense secretary inspected British forces in the Gulf and readied them for possible conflict. But if the British and other governments had taken a tougher stance on Saddam Husayn and his arms buildup those Western forces might now not be preparing for war."

Eyewitnesses Cited on Missile Deployment

NC0409142890 Paris AFP in English 1359 GMT
4 Sep 90

[Text] Manama, Sept 4 (AFP)—Iraq has deployed at least three truck-mounted missile batteries near Kuwait City, witnesses who recently fled the Iraqi-occupied emirate said here Tuesday.

The two Bahrainis, both familiar with military affairs, said the surface-to-surface missiles were marked al-Husayn, al-'Abbas, and al-Saddam.

Al-Husayn is the best known of Iraq's arsenal of ballistic missiles. It is an improved version of the Soviet-made Scud-B missile and has a range of 600 kilometres (370 miles).

During the Iran-Iraq conflict, Moscow supplied Baghdad with several hundred Scud missiles, which lack precision but caused heavy damage in attacks on Iranian cities.

Al-'Abbas has a range of 900 kilometres (550 miles), according to Iraq's minister of military industries, Husayn Kamil. After its test firing in April 1988, he said it was an improved version of al-Husayn.

The other missile, al-Saddam, named after Iraqi President Saddam Husayn, is also a converted Scud-B, but less is known of its capabilities.

The Bahraini witnesses, who declined to be named, said the Iraqi Army had deployed several heavy tanks, anti-aircraft batteries and multi-barreled rocket launchers on the seafloor at Kuwait City.

ISRAEL

Alleged Iraqi Nuclear Capability Viewed

Israeli Military Analysis

TA2608145090 Tel Aviv HA'ARETZ in Hebrew
26 Aug 90 p A4

[Report by Re'uven Pedatzur and Eytan Rabin]

[Excerpts] Defense Minister Moshe Arens has said that to the best of his understanding and knowledge, contrary to THE DAILY MAIL reports on Friday, Iraq is incapable of manufacturing nuclear bombs within a matter of weeks.

Senior military sources gave a similar assessment. They believe the report was speculative and has no firm

factual basis. Avi Pazner, the prime minister's media adviser, said the report was "surprising." [passage omitted]

Senior Israeli military sources have reported that Iraqi possession of enriched uranium has been a known fact for some time, but that their difficulties in manufacturing a nuclear bomb are not necessarily in this sphere.

Israel is closely monitoring Saddam Husayn's attempts to produce a nuclear bomb. According to assessments that prevail among authoritative sources, Iraq will achieve nuclear capability sometime between five and 10 years.

Western scientists are involved in the Iraqi nuclear project. Some of them have their governments' tacit consent to their involvement.

It is believed that if a war breaks out in the Gulf, Iraq's nuclear installations will constitute prime targets on the U.S. list.

Israeli experts maintain that this would be a one-time opportunity to delay, or perhaps even totally halt, the Iraqi nuclear project. From Israel's point of view, it will be greatly advantageous if the United States does that job.

If the Iraqi nuclear installations are not destroyed, said the Israeli experts, it will probably be impossible to halt the program. The Middle East will constantly turn into a nuclear zone within a few years.

Against the backdrop of Saddam Husayn's conduct and activities, nuclear power in his hands could become a supreme means of extortion that could lead to a total upsetting of the rules of the game between Israel and the Arab world, or within the Arab world itself.

Arens Adviser Comments

TA2408123490 Jerusalem Domestic Service in Hebrew
1200 GMT 24 Aug 90

[Excerpt] Another reaction in Israel to the DAILY MAIL report that Iraq is capable of producing two atom bombs in two weeks: Dani Nave, the defense minister's media adviser, has said that it is impossible to confirm this piece of information. At the same time, Dani Nave told our correspondent Karmela Menashe that it is known that Saddam Husayn continues his efforts to develop a nuclear capability. The defense minister's adviser expressed the hope that now that the world has been awakened to the potential behind Saddam Husayn's threats, an international effort will be made to make sure Iraq does not attain a nuclear capability. [passage omitted]

Science Minister's Assessment

TA2808101990 Jerusalem THE JERUSALEM POST
in English 28 Aug 90 p 2

[Report by Matthew Seriphs]

[Text] If Iraqi President Saddam Husayn is not stopped, he will be able to produce nuclear weapons in "as little as

three years," Science and Technology Minister Yuval Ne'eman warned yesterday.

Speaking at the Tehiya party's first international conference in Jerusalem, the minister, a leading physicist, said Iraq's nuclear advances had increased the need for concerted Western action.

Ne'eman added that he did not think Iraq would attempt to involve Israel directly in the crisis because of this country's formidable deterrent capacity.

"While attracted by the idea of uniting the Arab states behind him against Israel, on the practical level Saddam Husayn probably does not dare to strike at us at this stage," he said.

Ne'eman, who caused a controversy only weeks before Iraq's invasion of Kuwait by urging that Israel produce chemical weapons in response to an Iraqi threat to use them, thought that Saddam's recent rapprochement with Iran showed that he was merely "trying to survive" the current storm.

Ne'eman told the Tehiya delegates that recent events had brought about the destruction of certain myths concerning Israel's place in the Middle East.

He accused the national unity government of 1985-86, under Shim'on Peres, of giving currency to two mistaken ideas: that the demographic consideration—giving up the territories to ensure a Jewish majority in Israel—was more important than having the land as a buffer, and that "atavistic" worries about defence were excessively alarmist.

"We are living through the collapse of these two paradigms," the minister said.

Ne'eman spoke of an about-face in the West's attitude to the Middle East since the Iraqi invasion, and a new understanding throughout the world about the dangers that lurked in the region.

He said that Israel's security could benefit, without active involvement on Israel's part, if the West carried out its declared ultimatums. "It is now a problem of the Western world's resolve," he said.